

DEVELOPMENT OF A SCALE TO ASSESS SAME-GENDER RELATIONSHIPS

By

Christopher J. Keown-Belous

A DISSERTATION

Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of

DOCTOR OF PHILOSOPHY

Human Development and Family Studies

2012

## **ABSTRACT**

### **DEVELOPMENT OF A SCALE TO ASSESS SAME-GENDER RELATIONSHIPS**

By

Christopher J. Keown-Belous

There is no empirically-based assessment instrument developed specifically for use with same-gender couples. Assessments developed with heterosexual couples present difficulty in studying same-gender couples as same-gender couples face unique challenges as a marginalized population.

Most research currently available on same-gender couples is focused on the differences between heterosexual and same-gender couples. There is little unique literature exploring the relationships themselves, their characteristics or how same-gender relationships actually function. This research has attempted to bridge that gap in the literature by creating a relationship measure, the Scale for Assessing Same-Gender Relationships (SASC), based on research and theory about same-gender relationships, and empirically validating that measure with an all LG sample – something that has not been done before.

The SASC was developed to assess relationship satisfaction and social support in same-gender relationships. Some items came from the Relationship Assessment Measure for Same-Sex Couples, a measure of same-gender relationship functioning that has not been well validated, with the remainder of the items coming from literature regarding adjustment and satisfaction in same-gender relationships.

An online study was conducted that resulted in a total functional sample size of 295 participants. The sample was diverse in terms of geographic location, age, gender, and sexual orientation/attraction. The SASC was evaluated in Classical Test Theory analyses, as well as

with Item Response Modeling. The results support the argument that the SASC is a valid and empirically sound instrument. The final version of the SASC is a 24 item, Likert-scale assessment that is capable of identifying distress in relationships, relationship satisfaction, and levels of perceived social support.

Clinically, the measure is suited for use by therapists working with same-gender couples to assess levels of relationship satisfaction before, during, and after treatment. The instrument can provide researchers with an objective measure for same-gender relationship satisfaction, as well as perceived social support, an important factor in relationship functioning.

Copyright by  
CHRISTOPHER J. KEOWN-BELOUS  
2012

## **DEDICATION**

This dissertation is dedicated to my partner, Jessica. I cannot thank you enough  
for always believing in me, and being there for me – even when I thought  
I could not do it anymore. I love you more than anything,  
because *it's you and me*.

## ACKNOWLEDGEMENTS

*“If we knew what it was we were doing, it would not be called research,  
would it?” – Albert Einstein*

So many people deserve thanks and recognition for their help along the way. First, I would like to thank my participants, without whom, there would be no dissertation. Further, I would like to acknowledge their courage in sharing their stories and resilience in the face of adversity in a society in which they are frequently treated as second class citizens.

I would like to thank Richard Wampler, my advisor and mentor – and consummate role model. I can honestly say I would not be here if not for his guidance and care. You have always been there for me, and I hope that one day I can pass on that same care and wisdom to another generation of Couple and Family Therapists. I would also like to thank the members of my committee – Adrian Blow, Ruben Parra-Cardona, and Tina Timm. They have all been there throughout my graduate education, and have supported me on this journey. Your help and knowledge has been unending, and I cannot thank you enough.

My family is the foundation which has given me the strength to complete this process. To my loving wife, Jessica, I would not be here without you. I hope I can show you the same support in the future as you have shown me. My “adopted” family of Cheri and Gus Keown has shown me the love of parents, and I will never forget their undying positive support for me. My sister, Nicole, and her partner, Tristan, have inspired me in seeing how a same-gender couple can lead a satisfying, positive life together. To Samantha and Greg, my niece and nephew - may you always chase your dreams.

Thank you to everyone, and just know, this is as much your dissertation as it is mine. Thank you.

## TABLE OF CONTENTS

|  |     |
|--|-----|
| LIST OF TABLES .....   | xi  |
| LIST OF FIGURES .....  | xii |
| CHAPTER I  |     |
| INTRODUCTION .....   | 1   |
| The MMPI as an Example of a Measure Developed and Widely<br>Used without Respect to Potentially Relevant Factors ..... | 2   |
| History of Bias in Assessment Development and Use with LG Populations .....  | 3   |
| Diagnostic and Statistical Manual of Mental Disorders .....  | 3   |
| The Minnesota Multiphasic Personality Inventory .....  | 4   |
| Relationship Assessment .....  | 4   |
| Measures of Same-gender Relationships .....  | 5   |
| Challenges to LG Relationships .....   | 6   |
| Psychological Issues .....   | 6   |
| Relational Issues .....  | 6   |
| Relational Therapy .....   | 7   |
| Research on Same-gender Couple Characteristics .....   | 7   |
| Guiding Theoretical Frameworks .....   | 9   |
| Social Constructivism .....  | 9   |
| Feminist Theory .....  | 9   |
| Queer Theory .....   | 10  |
| Aim of Study .....   | 10  |
| CHAPTER II   |     |
| LITERATURE REVIEW .....  | 11  |
| Societal Discrimination and Stigma .....   | 11  |
| History of Bias in Couple and Family Therapy .....   | 13  |
| Minority Stress Theory .....   | 14  |
| Bias in Assessment .....   | 15  |
| What is Known about Same-gender Couples .....  | 15  |
| Household Labor .....  | 16  |
| Conflict .....   | 16  |
| Support .....  | 17  |
| Satisfaction .....   | 17  |
| Stability .....  | 17  |
| Isomorphic Focus of Current LG Research and CFT Practice .....   | 18  |
| Model Use .....  | 18  |
| LG Assessment .....  | 19  |
| Classical Test Theory .....  | 19  |

|   |    |
|---|----|
| Item Response Theory.....                                   | 19 |
| Assessment Use and Development .....                        | 20 |
| Contemporary Measures Utilizing LG Samples .....            | 21 |
| Relational Assessment Measure for                           |    |
| Same-Sex Couples.....                                       | 21 |
| The Lesbian Partner Abuse Scale .....                       | 23 |
| Courage to Challenge Scale .....                            | 24 |
| Lesbian, Gay, and Bisexual Visibility                       |    |
| Management Scale .....                                      | 24 |
| Lesbian, Gay, and Bisexual Identity Scale.....              | 25 |
| The Lesbian Internalized Homophobia Scale.....              | 26 |
| A Lesbian Identity Disclosure Assessment .....              | 27 |
| Anti-Bisexual Experiences Scale.....                        | 27 |
| What do these measures mean for research and practice?..... | 28 |
| Summary and Overall Statement of Research Intent .....      | 30 |
| Hypotheses .....  | 30 |
| <br>CHAPTER III   |    |
| METHODS .....   | 32 |
| Approach.....   | 32 |
| Summary of Analyses Conducted to Evaluate Hypotheses .....  | 32 |
| Procedure .....   | 34 |
| Recruitment and Data Collection.....                        | 34 |
| Participants .....  | 36 |
| Online Data Collection.....                                 | 36 |
| Online Data Collection Procedures .....                     | 37 |
| Instruments.....  | 37 |
| Revised Dyadic Adjustment Scale.....                        | 37 |
| Outcome Questionnaire 45.2 .....                            | 38 |
| Basic Demographics Survey.....                              | 39 |
| Scale Development .....                                     | 39 |
| Initial Development of the SASC.....                        | 39 |
| Factor Analysis .....                                       | 40 |
| Final Version of the SASC .....                             | 41 |
| Reflexivity and Positionality of the Researcher .....       | 42 |
| Positionality .....   | 42 |
| Reflexivity.....  | 42 |
| Analyses.....   | 43 |
| Data Analysis.....  | 43 |
| Reliability .....   | 43 |



|   |    |
|---|----|
| Validity .....  | 43 |
| Criterion .....   | 43 |
| Content .....   | 43 |
| Construct .....   | 44 |
| Discriminant .....  | 44 |
| Item Response Modeling .....  | 44 |
| Analysis of Covariance and Multiple Analysis of Variance.....                       | 45 |
| Cluster Analysis .....  | 45 |
| Missing/Incomplete Data.....  | 46 |
|   |    |
| CHAPTER IV  |    |
| RESULTS.....  | 55 |
| Data Cleaning .....   | 55 |
| Results of Analyses .....   | 56 |
| SASC Descriptive Statistics .....   | 56 |
| H1: The SASC will Demonstrate Evidence of Reliability .....                         | 56 |
| H2: The SASC will Demonstrate Evidence of Validity .....                            | 56 |
| H3: Item Response Theory Modeling will show that the items of                       |    |
| the SASC provide evidence that they measure relationship                            |    |
| satisfaction .....  | 57 |
| Factor 1 – Relationship Satisfaction .....  | 58 |
| Examine Slope Discriminants .....   | 58 |
| Compare Category Thresholds .....   | 58 |
| Chi-Square Diagnostics .....  | 59 |
| Inspection of Graphical Output .....  | 59 |
| Factor 2 – Support .....  | 60 |
| Examine Slope Discriminants .....   | 60 |
| Compare Category Thresholds .....   | 61 |
| Chi-Square Diagnostics .....  | 61 |
| Inspection of Graphical Output .....  | 61 |
| H4: The SASC can be used to identify individuals in                                 |    |
| distressed and non-distressed relationships .....                                   | 62 |
| H5: Groups of participants can be defined by scores on                              |    |
| measures of relationship satisfaction and by their                                  |    |
| levels of psychological and relationship distress .....                             | 63 |
| H6: Relationship Satisfaction, as measured by the SASC,                             |    |
| will vary by age, months out, and gender .....                                      | 64 |
| Additional Findings .....   | 65 |
| Independent Samples <i>t</i> -test: RDAS Original Norm Scores vs. This Sample ..... | 65 |

## CHAPTER V

|   |     |
|---|-----|
| DISCUSSION.....   | 90  |
| The Measure.....  | 93  |
| Classical Test Theory Analysis .....                            | 93  |
| Item Response Modeling.....                                     | 95  |
| Relationship Satisfaction .....                                 | 95  |
| Social Support .....  | 96  |
| SASC as a Method of Determining Distress in Relationships ..... | 97  |
| Clinical Implications.....                                      | 97  |
| Use of Instrument.....  | 98  |
| Scoring and Interpretation .....                                | 98  |
| Measuring Change .....  | 98  |
| Research Implications.....                                      | 99  |
| Assessment of Same-Gender Couples .....                         | 99  |
| Conclusion .....  | 99  |
| Limitations.....  | 99  |
| Summary .....   | 100 |

## APPENDICES

|   |     |
|---|-----|
| Appendix A: Recruitment Text and Ads .....                                      | 102 |
| Appendix B: Informed Consent .....  | 105 |
| Appendix C: Scale for Assessing Same-Gender Couples .....                       | 108 |
| Appendix D: Revised Dyadic Adjustment Scale .....                               | 110 |
| Appendix E: Outcome Questionnaire 45.2 .....                                    | 113 |
| Appendix F: Qualitative Survey Questions & Online Survey Format .....           | 116 |
| Appendix G: Final Version of the Scale for Assessing Same-Gender Couples .....  | 121 |
| Appendix H: SASC Hand-Scoring Worksheet with Interpretive <i>T</i> -Scores..... | 124 |

|                  |     |
|------------------|-----|
| REFERENCES ..... | 127 |
|------------------|-----|

## LIST OF TABLES

|   |     |
|---|-----|
| Table 3.1: Characteristics of Sample Population.....  | 47  |
| Table 3.2: Final SASC Scale with Item Factor Loadings .....   | 51  |
| Table 3.3: Item Reduction Logic – Number of Items Reduced from 30 to 24.....                                      | 53  |
| Table 4.1: Correlation Matrix of SASC by RDAS .....   | 66  |
| Table 4.2: Correlation Matrix of SASC by OQ 45.2 .....  | 67  |
| Table 4.3: Fisher’s $z$ -Test of Correlations .....   | 68  |
| Table 4.4: Item Level Parameter Estimates and Diagnostic Statistics –<br>SASC F1 – Relationship Satisfaction..... | 69  |
| Table 4.5: Item Level Parameter Estimates and Diagnostic Statistics –<br>SASC F2 – Support.....                   | 70  |
| Table 4.6: Final Cluster Characteristics .....  | 71  |
| Table 4.7: Results of MANOVA with SASC Subscales as Dependent Variables .....                                     | 72  |
| Table 4.8: Results of Univariate ANOVAs with SASC Subscales as Dependent Variables .....                          | 73  |
| Table A.1: Raw Score Chart, with Corresponding T-Score Values .....   | 126 |

## LIST OF FIGURES

|   |    |
|---|----|
| Figure 3.1: Scree Plot .....  | 54 |
| Figure 4.1: Item Information Curves – SASC F1 – Relationship Satisfaction.....  | 76 |
| Figure 4.2: Total Information Curve – SASC F1 – Relationship Satisfaction ..... | 80 |
| Figure 4.3: Trace Lines – SASC F1 – Relationship Satisfaction .....             | 81 |
| Figure 4.4: Item Information Curves – SASC F2 – Social Support .....            | 85 |
| Figure 4.5: Total Information Curve – SASC F2 – Social Support.....             | 87 |
| Figure 4.6: Trace Lines – SASC F2 – Social Support .....                        | 88 |

# **CHAPTER I**

## **INTRODUCTION**

Approximately 3.5% of the United States adult population self-identifies as lesbian, gay, or bisexual (LGB, Gates, 2011). In survey research, 8% percent of adults in the US population report having had same-gender sexual contact at some point in their lives, and 11% report having same-gender attraction (Gates). Recent estimates indicate that as high as 46% of gay men and 62% of lesbian women (ages 18-59) are in cohabiting, same-gender relationships (an average of approximately 54%, Carpenter & Gates, 2008). In comparison, approximately 62% of heterosexual adults in this age range are in cohabiting, opposite-gender relationships (Carpenter & Gates). Although statistics show that similar percentages of heterosexual and LGB adults are in cohabiting relationships, there is very limited research related to the characteristics of LGB relationships, as opposed to extensive information about opposite-gender couples.

It is well-established that the quality of committed dyadic relationships has value for both physical and mental health (Kurdek, 2005); therefore, interventions that strengthen LGB, as well as those that strengthen heterosexual, relationships are very important. Further, it is important to be able to provide evidence that any particular relational intervention is effective for one or both types of relationships. To do so, there must be some valid assessment of the effect of the intervention on the relationship. However, it has been common to assume that a relationship measure developed for a heterosexual population is equally appropriate for the LGB population, due to the assumed similarity of relationship characteristics. The assumption has not been validated; in fact, the limited research on LGB relationships that has been conducted indicates that there are differences that must be accounted for (Burgoyne, 2001).

## **The MMPI as an Example of a Measure Developed and Widely Used without Respect to Potentially Relevant Factors**

The use of a measure developed for one population with other populations raises important questions of ethics, as well as validity. The Minnesota Multiphasic Personality Inventory (MMPI and MMPI-2; Hathaway & McKinley, 1943, 1951) serves as a classic example of the problems inherent in developing instruments for one population and applying the instrument to other populations. The MMPI is one of the most widely used instruments to assess an individual's mental health or lack thereof. Originally developed in the 1930's in Minneapolis, the "normative" MMPI scale scores that were used for many years were based largely on data collected from visitors at the University of Minnesota Hospitals who were waiting for a friend or relative receiving medical treatments. The normative sample reflected the population of Minnesota at the time and consisted largely of non-Hispanic whites of Northern European heritage, typically married, ranging in age from 16-65 years old (average was mid-30s), living in small towns or rural areas, with an 8<sup>th</sup> grade education (MMPI Restandardization Committee, 1989).

It was clear that restandardization was needed long before the development of the MMPI-2 (MMPI Restandardization Committee, 1989); however, the new normative sample was also limited. For example, all 77 participants in the Native American sample were living on a single Federal reservation in Washington State. The national norms were based on the responses of 19 Asians, 314 African Americans, 73 Hispanics, and over 2,000 non-Hispanic whites. Further, "[A] special effort was made to recruit couples who were either married or had lived together for at least one year (MMPI Restandardization Committee, p. 4)." The reason for this latter decision was that each member of the couple filled out a questionnaire about the other partner, and the

answers were used to validate the questions on the MMPI-2. This restricted the variance because partners tend to resemble one another psychologically. To add to the lack of representativeness, 42% of males and 40% of females were in professional occupations, education levels were higher than in the general population, and very few participants were in clerical or labor categories. The lack of diversity limited the variance in the sample population.

Even with the limits on this normative sample, the MMPI and MMPI-2 have been used clinically and in research with all races/ethnicities, ages, and sexual orientations/attractions with little concern for the appropriateness of the measure. Indeed, the norms are applied to all individuals taking the test, regardless of individual characteristics that differ from the original sample. With the inherent negative bias toward non-white and/or non-heterosexual individuals, the MMPI continues to demonstrate the “myth of sameness,” i.e., isomorphic assumptions across populations related to treatment and measurement (Hardy, 1990).

### **History of Bias in Assessment Development and Use with LGB Population**

**Diagnostic and Statistical Manual of Mental Disorders.** Oppression and discrimination of the LGB population has been present in the mental health field at least since the inception of psychoanalysis. Mainstream practitioners’ acceptance of this oppression is most evident in the history of the Diagnostic and Statistical Manual of Mental Disorders (DSM). In the first two editions of the DSM, homosexuality was listed as a diagnosable mental disorder, presumably treatable with drugs or various forms of therapy, including talk therapies, shock therapies, etc. (APA, 1952, 1968). It was not until the publication of the DSM-III (APA, 1980) that the mental health diagnosis of “homosexuality” was removed. Even in DSM-IV (APA, 1994), there was a diagnosis of “Gender Identity Disorder of Childhood,” widely considered a “backdoor” diagnosis

of homosexuality. This diagnosis may be removed in DSM-V when it is published in 2013 (Zucker & Spitzer, 2005).

**The Minnesota Multiphasic Personality Inventory.** Discrimination against LGB individuals inherent in psychological test construction has been evident as well. During WWII, the War Department began to use the MMPI to screen out draftees and volunteers with serious mental disorders. The Department also wanted to be able to exclude homosexuals from the military, and asked that a scale to identify homosexuals be added to the MMPI. To achieve this, the MMPI developers traveled to New York City to interview a small group of 13 openly gay and, presumably, very effeminate men (Hoffman, 2001). Questions developed from those interviews included the famous, “I would like the work of a florist.” Any man who scored high on the Masculinity-Femininity scale (Scale 5) was excluded by the military (high femininity); as were any women who had very low raw scores on the same scale (high masculinity). This scale gave therapists and test administrators a “scientific” way to identify gays and lesbians, and resulted in patently unfair decisions by the military. In the MMPI-2, Scale 5 was revised somewhat, removing never-specified “objectional content” (MMPI Restandardization Committee, 1989, p. 29).” Scale 5 is often ignored when interpreting the MMPI (Martin & Finn, 2010); however, it continues to be part of the MMPI-2 scoring and interpretation process, at least for some evaluators.

**Relationship Assessment.** Assessment is key to gathering research data, as well as an integral part of psychotherapy. Researchers use assessments to get information on specific populations, gather data on topics of interest, and explore new areas of inquiry. Therapists use assessment to gather baseline information, make diagnoses, plan treatment, and measure change. However, much of the research on LG relationships relies on instruments developed and normed



with non-LG couples. For example the Dyadic Adjustment scale (DAS; Spanier, 1976) and Revised Dyadic Adjustment scale (R-DAS; Busby, Christensen, Crane, & Larson, 1995) are considered among the best relational assessment tools for couple therapy. Both were normed with heterosexual samples. These assessments do not take into account issues of stigma, secrecy, and lack of family support and social acceptance, common issues for LG persons that are typically distinct from the concerns of their heterosexual counterparts (Kuyper & Fokkema, 2011; Meyer, 2003).

Relational assessment of LG couples has traditionally been based on assumptions that their dynamics and issues of heterosexual opposite-gendered couples are similar (Kurdek, 1992). Few assessments of any kind have been normed within an LG population, and almost all relational measures were developed with exclusively heterosexual samples (Burgoyne, 2001; Chung & Katayama, 1996; Kurdek, 1992, 2004a; Malcolm, 2002).

### **Measures of Same-gender Relationships**

Most measures that have been used to assess same-gender relationships were developed based on an isomorphic assumption of similarity between LG and heterosexual couples (c.f., Hardy, 1990). That is, it has been assumed that LG couples feel, think, and act in relationships in much the same ways as heterosexual couples. In a clinical setting, isomorphism is an assumption about clients that leads to similar treatment (Liddle, 1984) for similar problems, assuming that people with similar presenting problems are similar. Isomorphism in couple and family therapy dates back to and stems, at least in part, from the development of structural therapy. The assumption that instruments designed and validated with heterosexual samples are isomorphic with LG samples is, *prima facie*, discriminatory. LG couples experience unique challenges that do not align in content or intensity with the common difficulties experienced by opposite-gender

parings. When considering differing client systems, uniqueness of experience and environment must be examined whether addressing individual, couple, or family issues.

### **Challenges to LG Relationships**

**Psychological issues.** Several studies have shown that individuals who identify with a non-heterosexual orientation have higher rates of stress, stigma, and social isolation when compared to heterosexual-identified individuals (Kuyper & Fokkema, 2011; Malcolm, 2002; Meyer, 2003). Not surprisingly, LG individuals also account for a disproportionately larger percentage of clients presenting for outpatient therapy, compared to their percentage in the total population. They have higher rates of mental disorders, especially depression and anxiety, as well as an increased risk of suicide (Meyer). Assessments are one method by which mental health providers evaluate clients for psychological difficulty and disorders, as well as serving to inform treatment. There is an inclination by therapists and evaluators to use well-accepted measures when treating a client, regardless of the client's sexual orientation.

**Relational issues.** Higher levels of social support correlate with higher levels of relationship and personal satisfaction (Gallor & Fassinger, 2010). The lack of acceptance by peers and family members increases the likelihood of mental health difficulties and identity development problems (Ariel & McPherson, 2000; Green, 2000). Research has shown that low support from those who are close to a person or from the public leads to higher rates of perceived stigma and social isolation (Ariel & McPherson; Dooley, 2009; LaSala, 2000; Patterson, 2000; Rostosky et al., 2004; Ryan, Huebner, Diaz, & Sanchez, 2009). Individual psychological issues can have an effect on couple relationships, and, conversely, the lack of social acceptance of the relationship has a negative effect on the individual. A positive relationship with a supportive partner can decrease the effect of lack of support from others (Clausell & Roisman, 2009; Frost,

2011; Knoble & Linville, 2010; Kurdek, 2008). In general, individuals in committed relationships have higher levels of acceptance and support from family and the public (Meyer, 2003; Ryan et al.). Most of the research into support issues has focused on individual outcomes and not couple relationships.

**Relational therapy.** Because positive relationships are important to individual adjustment and mental health, relational therapy can be of benefit for LG couples (Burgoyne, 2001; Rostosky, Riggle, Dudley, & Wright, 2006). As systemic thinkers, couple and family therapists can provide valuable insight into the ecological nature of relationship interaction. It is important to understand the history and current status of stressors in clients' lives and be able to understand the environment in which they live. As quick information-gathering tools, assessments are utilized frequently to gain a "snapshot" into a client's current context. However, measures that are used frequently in relational therapy have been developed without consideration of diverse populations and do not account for systemic variables. Currently, there is a lack of reliable and valid instruments to measure same-gender relationships and/or social support systems.

### **Research on Same-gender Couple Characteristics**

Recent estimates are that 37-62% (Carpenter & Gates, 2008) to 40-80% (Kurdek, 2008) of gay and lesbian individuals are in committed relationships. These estimates are developed from census results and self-report surveys. It is possible the data are biased by sample selection. Most of the research that has been conducted with same-gender couples has focused on a comparison with opposite-gender couples (e.g., Kurdek, 2004a), instead of identifying unique features of each. Further, most research has focused on negative or stereotypical aspects of the same-gender relationship: HIV status (e.g., Darbes, Chakravarty, Beougher, Neilands, & Hoff,

2012) and lack of monogamous commitment (e.g., LaSala, 2004; Rostosky et al., 2006). With the focus on demography, lack of monogamy, disease, sexual behavior, and HIV/AIDS treatment, there has been little focus on the characteristics of the actual relationship (Kurdek, 2008).

Most of the applicable research about same-gender relationships has come from an examination of the effects of the legalization of same sex marriage. This research has focused on demographics related to rates of marriage and divorce, and compared those rates to heterosexual couples (e.g., Canada: MacIntosh, Reissing, & Andruff, 2010; US: Balsam, Beauchaine, Rothblum, & Solomon, 2008; Porche & Purvin, 2004; Solomon, Rothblum, & Balsam, 2004). Research has found, in general, that same-gender couples who have married have more stable relationships and get a divorce less frequently than heterosexual couples. The research also shows increased levels of satisfaction and intimacy and lower levels of conflict when compared to similarly married heterosexual couples. However, these studies are based on a relatively small sample of same gender couples who have been in relatively short legal marriages. More positive communication styles in gay and lesbian couples correlated highly with positive behavioral interactions which, in turn, resulted in higher levels of relationship quality (Julien, Chartrand, Simard, Bouthillier, & Begin, 2003).

Research has shown that stigma and lack of social support play a major role in lower relationship satisfaction in same-gender couples (Frost, 2011; Otis, Rostosky, Riggle, & Hamrin, 2006). With increased stigma and oppression in environmental contexts, couples may be pulled closer together, with an an increased commitment to the relationship (Frost).

As a confounding factor, familial and friendship support of the relationship also has an impact on relationship satisfaction, albeit in a different way. With a decrease in acceptance and

support of family and friends, the relationship cohesion and satisfaction begins to decline (Julien et al., 2003; Rostosky et al., 2004; Smith & Brown, 1997). Also, lack of positive support from family and friends is associated with increases in mental health issues and more risky sexual behavior (Meyer, 1995; 2003). Social support also has a role in the decision of a same-gender couple to adopt or have children (Goldberg & Smith, 2008).

### **Guiding Theoretical Frameworks**

**Social constructivism.** Social Constructivism (Berger & Luckmann, 1967) provides the foundation for this research. Feminist and Queer Theory (Kolmar & Bartowski, 2010) provide additional layers for understanding and framing the problem. Social Constructivism theory arose from the study of how knowledge and understanding are created within a social context (Berger & Luckmann, 1967). Social Constructivism was an approach to better understand and make sense of social cues and interactions. Social Constructivism postulates that all knowledge and definitions of “normal” behavior are determined by social interactions (Foucault, 1969). Social Constructivism concepts regarding the centrality of the narrative process are critical in understanding behaviors in different settings. The theory allows for the understanding that “reality” is based on the experiences of the participants, and that one person’s experience may be quite different than another’s in the same situation. In particular, this theory helps to frame the investigation into points of view and the social contexts of understanding. Within this theory, we can postulate why and how beliefs are constructed, allowing the deconstruction and challenging of those beliefs.

**Feminist theory.** A feminist lens is helpful for looking at issues of oppression, gender, and differences, and in examining the dominant societal discourse. Feminist theory helps formulate this research by providing a framework in which the isomorphic assumptions about

relationship characteristics can be questioned. Furthermore, Feminist theory takes into consideration issues of gender, allowing for the examination of how gender impacts relationship functioning and development (Kolmar & Bartowski, 2010).

**Queer theory.** Queer theory is helpful as it combines elements of both Feminist theory and Social Constructivism by calling into question what, why, and how reality is constructed (Green, 2007; Wolf, 2009). Identity depends on others, and Queer theory asks what those identities assigned to us can mean (Jagose, 1997; Wilchins, 2004). Furthermore, Queer theory attempts to debunk the dichotomous nature of acceptance through heteronormativity. Removing presuppositions of gender, sexuality, and what is considered “normal” is the first step in “queering research” (Duggan, 1994). This research study will attempt to use the philosophy of Queer theory in underlying assumptions to challenge beliefs of normality.

### **Aim of Study**

There is no descriptive, empirically-validated assessment to measure the relationships of same-gender couples. Further, as a field, there is a lack of understanding as to how same-gender couples function, in terms of satisfaction and what creates successful or unsuccessful relationships. This study is an effort to fill these gaps in the literature and provide information on the measurement of satisfaction and associated constructs in the relationships of same-gender couples.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **Societal Discrimination and Stigma**

Lesbian and Gay (LG) communities have long struggled to gain equal rights under the law across the world (Marcus, 2002). Historically, the dominant Western and Middle Eastern religions (Christianity, Islam, and Judaism) have condemned homosexuality as a mortal sin. Over the centuries, homosexuals who were exposed were subject to imprisonment or worse. In fact, the pejorative “faggot” reflects the widespread practice of burning homosexuals at the stake, and the use of the word represents a desire to persecute and segregate individuals. In the United States and other countries, being a gay male or lesbian was considered illegal, as well as immoral (Williams & Retter, 2003). Many of these biases continue today, mostly in the form of unenforced laws criminalizing sodomy or other forms of non-standard heterosexual sexual relations.

Some of the most prejudicial laws came about during the time after World War II, a time of paranoia fueled by a desire on the part of the American public to return to pre-war moral and social attitudes (Adam, 1987). In the 1950’s and 1960’s, the Federal Bureau of Investigation and other law enforcement agencies kept lists of known gay men, places they frequented, and even their acquaintances. State and local governments authorized the citation of individuals for public lewdness and indecency (Marcus, 2002). Also during this time, homosexuality was included in the first Diagnostic and Statistical Manual of Mental Disorders (DSM; APA, 1952). Gay individuals sometimes were institutionalized as having a sociopathic personality disorder. This widespread fear and discrimination was accepted by the general public, as propaganda about the negative influences and activities of gay men and women was prevalent (Herek, 1996). In

response to this social stigma, LG individuals tended to stay hidden and not come out publicly – preferring to lead double lives or to suppress their sexuality (Adam).

The 1960's were a time of upheaval and social change within the United States. During this time, the civil rights and women's rights movements were gaining widespread recognition (Adam, 1987; Marcus, 2002). Based on, and modeled in part by, these movements, the LG community began to organize itself into a cohesive unit to fight for equal rights. The gay rights movement as it is known today began on June 28, 1969, with the Stonewall Riots in Greenwich Village, New York City. At the time, gay clubs were being raided on a regular basis by the police on false allegations (such as drug use, prostitution, etc.) that were rooted in LG discrimination. During one such raid on the Stonewall Inn, a local well-known gay club and bar, the patrons fought back against the police. Several innocent people were injured, and many rioters were hospitalized. After this uprising, residents of New York who identified as LG began protesting the rough behavior and treatment from the police, and more eruptions of riotous behavior followed during the succeeding days.

This LG community coming together for the first time provided the energy needed to organize and become a group that could work toward promoting awareness and rights. Within a few years of the Stonewall Riots, several publication outlets and gay rights organizations were founded. It further sparked the first known gay pride marches, occurring in Los Angeles, Chicago, and New York on the one year anniversary of the riots. As of June 1999, the US Department of the Interior designated the area surrounding the Stonewall Inn as a National Historic Landmark (Adam, 1987; Marcus, 2002). More recent advances include the passage of "gay marriage" laws in six states, along with court orders striking down restrictive marriage laws. As recently as



February 2012, a federal judge declared the Defense of Marriage Act unconstitutional because the act forbids federal benefits for partners in LG relationships (Williams, 2012).

Gay rights groups have grown in number since the start of the movement, and as a cohesive group have been able to advance the standing of LG persons in America. Through the empirical study of sexuality by influential social scientists like Evelyn Hooker, Alfred Kinsey, and Margaret Mead, the public got their first sense of the “normality” and prevalence of gay and lesbian sexual orientations/attractions within the general population. With this new information and a growing literature on the null or negative effects of attempts to “repair” sexual orientations to re-orient or change a sexual orientation through therapeutic methods (Serovich, Craft, Toviesi, Gangamma, McDowell, & Grafsky, 2008), several national organizations began to write and take stances on accepting homosexuality (Truth Wins Out & Lambda Legal, 2008). As of today, major national mental health organizations have taken a stance against discrimination based on sexual orientation/attraction, and several have supported lobbying efforts for LG rights equality (American Psychological Association, 1997; Avery et al., 2007; National Council of Social Workers, 2000; Truth Wins Out & Lambda Legal). The leading national organization for couple and family therapy, the American Association for Marriage and Family Therapy (AAMFT), has made statements with regard to the acceptance and non-discrimination of same-gender couples, and has stated that all families should be treated the same in therapy (AAMFT, 2005).

### **History of Bias in Couple and Family Therapy**

The field of Couple and Family Therapy (CFT) was founded and theoretical development was initiated by theorists utilizing a Eurocentric frame. In fact, scholars from the field have written at length about the inclusion of diversity in therapy, as well as in research (see:

McGoldrick, Giordano, & Garcia-Preto, 2005; Walsh, 2012). In the early days of relational therapy, little attention was paid to diversity, and virtually no attention was paid to sexual minorities. Recognizing this, the AAMFT's Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE), established standards that require a commitment to diversity in philosophy, mission, and training (COAMFTE, 2005).

Even with the increasing acceptance and promotion of diversity and awareness, there are still inherent and obvious inequities within our field of study, most notably the title we have given ourselves. As "Marriage" and Family Therapists (nationally recognized title/licensure), it is assumed to exclude those dating, not considering marriage, cohabiting, in LG partnerships, or having difficulties within an individual context. Several COAMFTE-accredited programs have recognized this obvious language issue and changed their program and clinic names accordingly (Michigan State University, North Dakota State University, University of Rhode Island, etc.) to be inclusive of all.

### **Minority Stress Theory**

The main tenet of MST is that a lesbian, gay, or bisexual (LGB) person in a heterocentrist society will experience stress related to her/his sexual orientation, often as a daily occurrence (Meyer, 1995, 2003). LGB people are seen as subject to a "constant coming out" process, in which, every day, they must choose the level of disclosure that they feel comfortable with in their interactions with others. This level is determined by the environment, perceived danger, and the effect that the knowledge of their sexual orientation will have on themselves and others. Internalized homophobia (Malyon, 1982), stigma, and actual experiences contribute to the level of minority stress. Significant associations have been found between higher levels of minority stress and mental health problems, including suicidal ideation, depression and anxiety (Kuyper &

Fokkema, 2011; Meyer, 1995). This in turn causes significant stress on relationship satisfaction, cohesion, and stability (Meyer, 2003).

### **Bias in Assessment**

The Eurocentric and heterosexist approach translated into the development of assessments. The inherent focus of our field on white, middle class, heteronormative assumptions has led most research to focus on these same populations. Initial research into areas of diversity focused more on a comparative method of determining the negative characteristics of individuals, couples, and families who do not fit into the accepted norm. It was not until recently that research has begun to shift to focusing more on resilience-focused outcomes and looking at the unique characteristics of diverse samples from a positive viewpoint (c.f., McGoldrick et al., 2005).

### **What is Known about Same-gender Couples**

Lawrence Kurdek was one of the first researchers to gather longitudinal data with same-gender couples, becoming one of the more widely-known researchers on same-gender couple relationship functioning (as reported by Hennessy, Coleman, & Ganong, 2011). Other research has been directed to specific areas of same-gender couple relationships, such as conflict resolution (Gottman et al., 2003), mental health therapy (e.g., Kort, 2008; McGeorge & Carlson, 2011; Frost, 2011), and intimacy and sexuality (e.g., Deenen, Gijs, & van Naerssen, 1994). However, most research has taken the form of a comparison between same-gender couples and their heterosexual counterparts. This reflects the much greater amount of available data about opposite-gender couples. However, this trend continues and gives credibility to the argument that isomorphic research will remain the norm.

## **Household Labor**

Research has shown that same-gender couples tend to have a more egalitarian relationship in terms of the division of household labor. In a heterosexual household, household tasks can be divided based on gender roles. When the gender difference is removed, couples must negotiate how household tasks are to be taken care of, with the ideal resolution coming from the particular strengths of each individual (Kurdek, 2005). Kurdek's research showed that there were differences between gay and lesbian couples. In lesbian relationships, the work was more equal, with little variance between couples. With gay couples, a wider range of tasks was assigned to each individual, and work was unbalanced at times.

## **Conflict**

Sources of conflict for gay and lesbian couples are not dissimilar from those of heterosexual couples. The top five conflict topics include finances, affection, sex, being overly critical, and household tasks (Kurdek, 2004b, 2005). Gottman et al. (2003) observed gay and lesbian couples, and found that they had a more positive discussion and conflict resolution style than heterosexual couples. That study found most same-gender couples started a conflicted discussion more positively – and were able to maintain that positivity throughout the conversation. Further, they were less likely to engage in demand/withdraw argument patterns, a pattern shown to be a highly ineffective to conflict resolution and detrimental to the relationship (Gottman et al.). Same-gender couples tend to resolve conflicts at a higher rate and with less stressful or negative interactions than heterosexual couples. This ability was attributed to their similar world views (Kurdek 2004b).

## **Support**

In general, LG couples perceive less support from family members, and name social friendships as their main source of support. Lack of support and acceptance by family members has been shown to have a negative effect on the quality of the LG couple relationship (Rostosky et al., 2004). Having a positive family or social support system can decrease risk factors in LG individuals for mental health problems, such as depression, anxiety, and specific phobias (Gallor & Fassinger, 2010; Goldberg & Smith, 2008). Also, research has shown that having a positive support structure outside the LG couple relationship leads to higher levels of relationship satisfaction and cohesion (Smith & Brown, 1997).

## **Satisfaction**

Same-gender couples are typically more satisfied in their relationships than heterosexual couples (Balsam, Beauchaine, Rothblum, & Solomon, 2008; Blumstein & Schwartz, 1983; MacIntosh, Reissing, & Andruff, 2010). This increase in satisfaction is often attributed to lower instances of conflict and similar outlooks on life (Balsam et al.). However, the constant stigma in our society of being in a sexual minority has been shown to have effects on couple interactions (Meyer, 1995, 2003). Same-gender couples' relationship satisfaction starts high and then begins to decline with length of the relationship. This is similar to patterns observed with heterosexual couples (Kurdek, 1998).

## **Stability**

Recent research on LG couples who have been married legally show that divorce rates are lower than those of heterosexual couples (Balsam et al., 2008). Most same-gender couples who have married typically have been together for some time prior to their marriage, and so have already committed to spending their lives together (Carpenter & Gates, 2008; Porche & Purvin,

2008). In relationships that are not legally recognized, as few as 19% of committed gay couples and 24% of lesbian couples dissolve the relationship after publicly committing to a lasting relationship, slightly higher than the rate of dissolution by heterosexual cohabiting couples (15%, Kurdek, 2004a). These same data have been replicated with little variation in European samples (e.g., Norway and Sweden: Andersson, Noack, Seierstad, & Weedon-Fekjaer, 2004).

### **Isomorphic Focus of Current LG Research and CFT Practice**

#### **Model Use**

Foundational models of CFT were developed by white, well educated men and reflect a Eurocentric world view. More recently, several models of therapy have been developed by theorists who have attempted to incorporate and focus more on diversity; e.g., Narrative (White & Epston, 1990), Emotionally-Focused Therapy (Greenberg & Johnson, 1988), and Internal Family Systems (Schwartz, 1995). Narrative Therapy was initially developed in Australia, and was based on aboriginal traditions of story-telling and focusing on the abstract (White & Epston). Feminist therapy also focuses on power struggles and recognizing imbalances in fairness (Silverstein & Goodrich, 2003).

More recently, theory has been focused on the integration and development of therapies that allow for the unique experiences of LG individuals and couples. Of particular importance are Affirmative Therapy practices, named by Malyon (1982), but developed most fully by Kort (2008). Several researchers have developed components of affirmative therapy practice, including descriptions of how to become an affirmative therapist (McGeorge & Carlson, 2011) and the development and use of scales to determine levels of therapist comfort and skill (Crisp, 2006).

## **LG Assessment**

### **Classical Test Theory**

Classical Test Theory (CTT) is the term given to the original format for developing and evaluating tests used for the measurement of traits or achievement (psychological, educational, etc.). In general, this method of test development focuses on the test as a whole, as well as the abilities of the test-taker. It does not focus on item-level considerations of fit for the most part. Instruments developed with this theory often are large scale and include a large number of items, such as the MMPI (DeVellis, 2006).

A fundamental tenet of CTT is that every person who takes a test has a “true score.” It is impossible to get this actual score, however, and it is assumed that the “observed score” or result of the test is the product of the true score, plus error (Allen & Yen, 2002). Due to this, one important component of a test developed with this method is reliability (Novick, 1966). This is why there are frequently large numbers of items, as well as a larger focus on test-retest statistics and internal consistency (e.g., Cronbach alpha levels). Several of the more common instruments used in psychological research and assessment were developed with CTT – for example the MMPI. Often, items on CTT tests are dichotomous. This is a drawback, as it limits variability in data and leads to the need for more items and a limit on the ability to determine the effectiveness of items in measuring the desired trait (Novick).

### **Item Response Theory**

Item Response theory (IRT) has been around as long as CTT; however, it is less well known. Because IRT requires more complex statistical analyses, it did not become popular until the widespread availability of computers in the 1980’s and the development of more sophisticated statistical techniques and packages. IRT focuses on each item in the test; thus, it is

more detailed and gives more information on each item. It allows for the use of Likert-scale type questions, as well as agreement-based (agree vs. disagree) responses to items. This increases variability and allows for a richness of detail that is often lacking in CTT test items (Baker, 2001).

The main focus of IRT models of analysis is on the probability of answering a question in the “correct” way. IRT assumes there is an underlying trait or traits that the item may or may not fit. This is directly influenced by a person’s ability and trait characteristics. As the methods of analysis for IRT become more complex, the more complex the items and data can become (DeMars, 2010). For example, IRT has been expanded into “Multidimensional Item Response Theory” in which multiple traits are measured through one assessment instrument, and at times, even with the same items (Reckase, 2009). Current developmental models allow for the analysis of any test data with IRT theory, one of the reasons it has become so popular (DeMars).

IRT is considered superior to CTT because of the flexibility of item construction to increase variance, as well as providing more information from each individual item than is possible with CTT. In addition IRT allows for computerized adaptive testing, which accounts for a respondent’s abilities and tailors a test to suit the examinee’s ability level. IRT is used in most high-stakes tests, including the Graduate Record Examination (GRE) and American College Testing (ACT) tests (DeMars, 2010).

### **Assessment Use and Development**

Most assessments that measure aspects of sexual orientation/attraction still reflect a heteronormative, Eurocentric bias. A review of contemporary research on assessment use and development shows that most assessments have been developed for use in measuring attitudes *about* the LG population, that is, to test and evaluate a straight sample’s beliefs about LGs.



Furthermore, no well-tested relational assessment has been developed for LG populations, nor has there been any real advancement in providing a normative sample for currently used relational assessments. Considering the assessments available for use with LG people, most development has focused on identity development and the identification of negative characteristics (lack of monogamy, HIV/AIDS).

There have been a few attempts to norm and validate heterosexual instruments for use with LG populations. The DAS (Spanier, 1979) was given to a sample population of gay and lesbian couples, and compared to the results of heterosexual couples (Kurdek, 1992). This study found that the DAS was only marginally helpful for distinguishing distressed LG couples. Also, the sample size used was limited ( $N = 114$  gay men, 83 lesbians) for adequate analysis. The Marital Satisfaction Inventory – Revised was also given to 28 lesbian couples, and 31 gay couples, as well as 36 cohabiting heterosexual couples for comparison (Means-Christensen, Snyder, & Negy, 2003). Results indicated that there was little difference in raw scores between the groups. Each of these studies continued to utilize isomorphic assumptions of relationship functioning, and used samples that were readily available in their geographic location.

### **Contemporary Measures Utilizing LG Samples**

It is important to note that, in a review of recent literature, there was no assessment directed exclusively toward gay men, and only one that was geared specifically toward the bisexual population (Brewster & Moradi, 2010). The lesbian population has been the focus of somewhat more assessment development. One more recent measure was developed specifically to be given to both partners (Burgoyne, 2001). Other measures are administered individually.

**Relational Assessment Measure for Same Sex Couples (RAM-SSC).** Relational assessments in particular are lacking. Of the assessments that focused on LG samples, only one

explicitly assesses couple issues. The Relational Assessment Measure for Same Sex Couples (Burgoyne, 2001) is a 90-item self-report measure constructed using CTT (Novick, 1966) in which participants respond to statements as either true or false. Nine subscales were proposed: conflict resolution, affection, cohesion, sexuality, identity, compatibility, autonomy, expressiveness, and social desirability. During initial development, items were based on the heterosexually-oriented Waring Intimacy Questionnaire (WIQ; Waring & Reddon, 1983), and the subscale structure closely resembles the WIQ as well.

For his sample, Burgoyne (2001) recruited 32 gay couples who were in treatment for relationship difficulties and 32 gay couples who were not in treatment. A total of 128 individuals participated in his study. The non-clinical sample of gay couples served as a control group for comparison. As a method of validation, Burgoyne employed independent sample *t*-tests to examine differences for all nine subscales and the overall measure (Burgoyne, 2001). This was the only method of validation, and no method of reliability testing was presented. As far as can be determined, no other researcher has used the RAM-SSC with gay, lesbian, or bisexual couples. In the latter part of his report, Burgoyne stated that he saw limitations for use of the RAM-SSC, particularly the lack of psychometric validation. He suggested that the measure should be used with caution; however, it is the only currently available measure specifically for same-gender relationship satisfaction.

The RAM-SSC was modeled on the WIQ, an opposite-gender relational assessment, with only minor item-level changes based on the language used within same-gender relationships. Unfortunately, Burgoyne did not add items or scales based on LG literature/research, and his editing of the items changed the inherent heterocentrist bias of the WIQ only slightly. The items do not reflect the research literature or stresses that a same-gender relationship often faces –

societal discrimination and/or lack of support systems. Furthermore, the measure has 90 items and is unwieldy. Finally, it is not based in current test construction theory (IRT). As developed, the measure can be seen as a first step toward a same-gender relationship assessment; however, it is lacking in utility, psychometric validation, and sound test construction methodology.

**The Lesbian Partner Abuse Scale (LPAS and LPAS-R).** The Lesbian Partner Abuse Scale (original-LPAS and revised-LPAS-R; McClennen, Summers, & Daley, 2002) was developed to address power imbalances in lesbian relationships characterized as abuse. Abuse was defined as physical violence perpetrated by one partner against the other. The original LPAS was a 135-item self-report measure with Likert-scale items. Through a series of factor analyses, the revised version of the LPAS-R was developed as a self-report 25-item measure, again items modeled in Likert-scale (McClennen et al.).

Unlike the RAM-SSC, the LPAS-R went through extensive psychometric evaluation, including factor analysis (four times), split-half reliability, and convergent validity (with the General Contentment Scale, Hudson, 1993b; and the Index of Self-Esteem, Hudson, 1993a). With a total of 78 participants and 135 or even 25 items, the use of a factor analysis is questionable. Most experts recommend that factor analysis be conducted with minimum sample sizes of at least 300 and/or at least a respondent to item ratio of 7:1 for “good” factor analysis (MacCallum, Widaman, Zhang, & Hong, 1999).

The assessment seems to have content validity in that the items were gathered and developed from research on violence studies in the lesbian population. The authors relied on research and theory that was shown to be valid with lesbian populations, including the adaptation of the “Power and Control Wheel” for same-gender couple relational violence (Southern Arizona

Task Force on Domestic Violence, 1995). However, the items were not reviewed by an expert panel, and the factor analyses results are questionable because of the sample size.

**Courage to Challenge Scale (CCS).** Smith and Gray (1999) developed the Courage to Challenge Scale in an attempt to measure personal hardiness as a component of developing personal resilience. This self-report instrument was developed for lesbians, gay men, and bisexual, and transgendered individuals. It is presented as a measure of a person's ability to cope with the social stress and stigma associated with a sexual minority identity. This is important when considering couple issues as research has shown that social stress and stigma (as psychological issues) negatively affect couple functioning (Meyer, 2003).

The initial development of this "rapid-assessment tool" (Smith & Gray, 2009, p. 73) was completed through the creation of a pool of items, narrowed through expert input. Evidence of validity was provided by the results of a confirmatory factor analysis (CFA). Cronbach's Coefficient Alpha (.86) was acceptable for internal consistency. The authors conducted the research in two different locations (Key West,  $n = 42$ , Fort Lauderdale,  $n = 53$ ), as well as in an online ( $n = 269$ ) format, with a total of 364 participants. Further validation was completed with discriminant validity, CCS scores correlated negatively with Costello and Comrey's (1967) Anxiety Scale, and convergent validity, correlating positively with the Gay and Lesbian Self-Esteem Scale (Herek, Coogan, Gillis, & Glunt, 1998).

**Lesbian, Gay, and Bisexual Visibility Management Scale (LGB-VMS).** The Lesbian, Gay, and Bisexual Visibility Management Scale (Lasser, Ryser, & Price, 2010) was developed to measure the amount and degree to which an LGB individual allows his/her sexual orientation to be known. The LGB-VMS is a 28-item self-report measure that includes items about concepts related to behavioral (active/inhibitive) and setting/situational factors of identity management.

This measure can be helpful when working with couples and individuals in therapy because there is a correlation between degree of “outness” and perceived stigma/prejudice (Knoble & Linville, 2010). As mentioned, comfort level with orientation identity can be a mediating factor in relationship satisfaction (Clausell & Roisman, 2009).

The investigators first completed an exploratory factor analysis (EFA) with 124 respondents to reduce the overall number of items from 40 to 28 (ratio = 3:1), and then utilized CFA to determine the subscale structure and overall validity of the reconstituted measure. A Chi-square goodness-of-fit analysis of inter-correlations of items and convergent validation (with the Ability to Modify Self-Presentation Scale; Lennox & Wolfe, 1984) techniques were also used to validate the measure. The sample population consisted of a total of 124 lesbian, gay, and bisexual individuals. The violation of the 7:1 ratio is a limitation for the use of factor analysis. Further, there is a lack of inter-item and test-retest reliability analysis that hinders the applicability of the instrument for general clinical or research use.

**Lesbian, Gay, and Bisexual Identity Scale (LGB-IS).** The Lesbian, Gay, and Bisexual Identity Scale (Mohr & Kendra, 2011) was developed to give researchers a method of assessing identity development and placement on an LGB-continuum, i.e., the degree to which an individual self-identifies with a specific sexual orientation category (Sell, 1997). The LGB-IS places individuals within one of three orientations (gay, lesbian, bisexual). It also assesses acceptance concerns, concealment motivation, identity uncertainty, internalized homonegativity, difficulty with identity development process, identity superiority, identity affirmation, and identity centrality. The LGB-IS is based on a previous version by Mohr and Fassinger (2000) that measured lesbian and gay identity, but did not assess bisexual orientation or measure for identity centrality. The authors were also able to shorten the measure to 27 items in a revision of

the original instrument through factor analysis and adaptation. The sample size was acceptable ( $N = 357$ ), and the measures of validity and reliability were adequate.

Utilizing stringent psychometric tests, the authors provided evidence for the validity and reliability of the measure through two independent studies. The first study ( $N = 357$ ) utilized CFA after initial exploratory factor analysis. Expert review of items also was used to further examine scale validity. Reliability was tested in the second study ( $N = 51$ ), utilizing test-retest to provide evidence of stability. Throughout the statistical evaluation, the measure consistently provided Cronbach inter-item alpha at acceptable levels ( $>.70$ ).

**The Lesbian Internalized Homophobia Scale (LIHS).** Homophobia is defined as the fear of same-gender attraction or activity (Weinberg, 1972). Internalized homophobia then is the irrational fear and self-loathing of an LGB orientation (Shidlo, 1994). The Lesbian Internalized Homophobia Scale (LIHS) was developed to assess this idea, with items based on research (Szymanski & Chung, 2001). Being able to identify internalized homophobia within an individual allows researchers to determine levels of identity acceptance. Level of self-acceptance has direct implications for couple relationships (Cabaj, 1998). The LIHS is a 52-item self-report measure that includes five subscales (connection with lesbian community, public identification, personal feelings about being a lesbian, moral and religious attitudes, and attitudes towards other lesbians). The LIHS showed strong convergent and criterion validity and inter-item correlations were significant. Overall, the measure had strong internal consistency (Szymanski & Chung).

The LIHS was initially developed with 73 items, which then underwent a modified Delphi-study with an expert panel of five independent judges. This was an attempt to remove bias from heterocentrist viewpoints in test construction. Items were sorted into one of the five subscales. The items were kept only if four out of five judges were in agreement as to the

subscale it belonged on. This method created a sense of content-validation and allowed for the reduction of items to a more manageable scale. There were over 300 lesbian participants in the study, allowing for valid measures of psychometric properties. As described, the construction of the test, validation procedures, and sample sizes seem adequate. A valid test of factor structure was with a 6:1 participant to item ratio was outside recommended ratios.

**A Lesbian Identity Disclosure Assessment (ALIDA).** This assessment was developed with lesbian mothers to measure identity disclosure (vanDam, 2008). Utilizing item-response theory, the author developed a 15-item (Likert scale) self-report measure based on informal interviews with lesbian mothers. In factor analysis with 360 respondents, the instrument yielded a single factor, with one item accounting for 49% of the variance, “family of origin.” The item was correlated for concurrent validity with the Self-Disclosure Situation Survey (SDSS; Chelune, 1976).

In general, this assessment was not well tested for reliability, nor was validity stringently evaluated. The concurrent validity was assessed through correlations with the SDSS which were only marginally significant ( $p < .10$ ). The author did not specifically state what kind of factor analysis was completed. The sample that was collected was comprised mainly of white, middle-class, well-educated lesbian mothers. As such, their data may have been skewed more towards better adjusted women who were open about their sexuality.

**Anti-Bisexual Experiences Scale (ABES).** People who identify as bisexual often perceive discrimination and prejudice from both the heterosexual and lesbian/gay communities (Arndt & deBruin, 2011; Brewster & Moradi, 2010; Meyer, 2003). This can be attributed to several factors: the lack of acceptance, dichotomous (either-or) thinking, and misunderstanding of the science and nature of sexual attraction (Shelton & Delgado-Romero, 2011). The Anti-

Bisexual Experiences Scale (Brewster & Moradi) measures the perception and presence of these discrimination experiences within the bisexual community.

Their sample consisted of bisexual persons, primarily white (79%), and female (59%), resembling national estimates of bisexual orientation (Gates, 2011). The measure was based on research literature. An expert panel reviewed the items and reduced the number of items and assessed for items' appropriateness. The first version was then given to 350 bisexual-identified individuals. Exploratory factor analysis revealed three subscales: Sexual Orientation Instability, Sexual Irresponsibility, and Interpersonal Hostility. These three subscales indicated the level and type of prejudice perceived by the participants when considering heterosexually and gay or lesbian-identified individuals. To further validate the measure, a second study with 349 participants demonstrated that the measure was stable in producing the same CFA factor structures. A third study with 176 people demonstrated reliability of the measure through test-retest at a two-week follow up. The final product of their research was a 17-item self-report measure.

Overall, the ABES assessment was one of the most stringently-tested instruments identified. It also provided the most information related to how the studies were conducted. Validity was assessed through correlations with various other measures (including the LGBIS, above), and reliability was examined through test-retest and CFA with separate samples.

**What do these measures mean for research and practice?** Of the measures critiqued, few were tested stringently to provide evidence of validity and reliability. Many instrument developers relied on "content validity," something that carries only limited value in test construction. There is a pattern in the research to develop a measure, administer it to a limited sample, complete some basic psychometric evaluation of content or criterion validity, and



publish the instrument. Rarely were studies replicated, nor were there other studies on the reliability of the measures, nor was the instrument used by others. Furthermore, most of the instruments were developed without consideration of the larger systemic influences when a person identifies as LGB. A few studies screened the items through an expert panel. Most were based on the author's review of theoretical and research publications or on an instrument developed for heterosexuals.

The lack of specific relational assessments for use with the LG population is concerning for two reasons. First, the lack of research on LG relationships limits a better understanding of those communities. Second, therapists can be better informed about their LG clients when reliable and valid assessment instruments are available. In many ways, social scientists have approached the LG community in the same limited ways that they approached minority and racial/ethnic communities. That is, what was known about white individuals and relationships was assumed to apply to all communities, regardless of origin and custom (Hardy, 1990).

There are currently more individual assessments and instruments to measure heterosexual attitudes and beliefs about the LG population than those for use with LGs. The Relationship Assessment Measure for Same Sex Couples (Burgoyne, 2001) is the only assessment that has been specifically aimed at a couple relationship.

It is obvious that assessment instruments for LG populations are developing. The number of instruments normed or developed based on isomorphic heteronormative assumptions is troubling, but seems to be decreasing with time. One of the most troubling areas of LG assessment is the lack of relational satisfaction or cohesion measures for same-gender couples. The one measure that has been used has not been appropriately validated, nor has it undergone any tests of reliability. As a legacy from foundational CFT theories, assessments for LGs have

been developed to assess identity development and negative characteristics without taking into account the issues of same-gender couples.

### **Summary and Overall Statement of Research Intent**

While there is research into assessment of individual characteristics within the LG community, there have been few investigations of the relationships of LG persons. There is also research on some of the characteristics of same-gender couples, but it is usually from an isomorphic-comparison approach between same-gender and heterosexual couples. No research has combined affirmative assessment with non-heteronormative items, and compared these data to the lived experiences of same-gender couples.

### **Hypotheses**

Almost no one has focused on an overall view of the relationship as the point of inquiry. This research aims to do that, as well as provide a foundation for future research into same-gender couple functioning. This study examines the psychometric properties of a new assessment, the Scale for Assessing Same-Gender Couples (SASC). Taking into account the literature presented above, and the problem statement as presented in Chapter I, the following research hypotheses are proposed.

H1: The SASC will demonstrate evidence of reliability.

H2: The SASC will demonstrate evidence of validity.

H3: Item Response Theory Modeling will show that the items of the SASC provide evidence that they measure relationship satisfaction.

H4: The SASC can be used to identify individuals in distressed and non-distressed relationships

H5: Groups of participants can be defined by scores on measures of relationship satisfaction and by their levels of psychological and relational distress.

H6: Relationship satisfaction, as measured by the SASC, will vary by cluster membership (based on RDAS and OQ subscales), age, months “out,” and gender.

## CHAPTER III

### METHODS

#### Approach

This research employed quantitative methods to address the hypotheses. Qualitative data were also gathered, but were not used in the present analysis.

#### Summary of Analyses Conducted to Evaluate Hypotheses

*H1: The SASC will demonstrate evidence of reliability.*

1. A reliability analysis (Cronbach alpha) was conducted with SASC items to provide evidence for its reliability.
2. A series of factor analyses were conducted to develop evidence of the reliability of the SASC.

*H2: The SASC will demonstrate evidence of validity.*

1. Correlations were computed between the SASC total score and each SASC subscale, and the RDAS total and subscale scores (Cohesion, Consensus, and Satisfaction) as evidence of convergent validity.
2. A correlation was computed between SASC total score and each SASC subscale and the Interpersonal Relationship and Symptom Distress scales of the OQ45.2 as evidence of convergent validity.
3. A correlation was computed between the SASC total score and the Social Role subscale of the OQ45.2 as evidence of divergent (or discriminant) validity.

*H3: Item Response Theory Modeling will show that the items of the SASC provide evidence that they measure relationship satisfaction.*

1. Item Response Modeling was used to evaluate the latent trait(s) in the SASC in the context of each item's information and ability to predict the underlying concept.

*H4: The SASC can be used to identify individuals in distressed and non-distressed relationships*

1. Correlations (described under H2.1) were computed to test whether individuals who were less satisfied with their relationship as measured by their  $z$ -scores on the SASC, would have similar scores on the RDAS.
2. An ANCOVA was used to test whether individuals' scores on the SASC differed by their age (covariate) or by their categorized scores on the RDAS using a score of 48 (normed cut-off value for heterosexual relationship difficulty) as the independent variable.
3. A MANOVA was conducted with the two SASC subscales as dependent variables, and the 2-category RDAS total scores as the independent variable.

*H5: Groups of participants can be defined by scores on measures of relationship satisfaction and by their levels of psychological and relational distress.*

1. A  $k$ -means cluster analysis was conducted to define groups of participants based on scores of relationship satisfaction measures and by their levels of psychological, social, and relational distress.

*H6: Relationship satisfaction, as measured by the SASC, will vary by cluster membership, age, months "out," and gender.*

1. A MANOVA was conducted to determine whether SASC scores differed by cluster membership, categories of age, and months "out," or by gender as independent variables.

## **Procedure**

### **Recruitment and Data Collection**

Participants were recruited via the internet from diverse geographic locations. Participants self-enrolled in the program. Recruitment was via online advertisements, using the text in Appendix A. Useable data from a total of 295 participants was obtained for analysis.

Participants gave consent to participate in the study by endorsing an option on the first page of the survey instrument. The informed consent text appeared first and outlined the requirements and components of the research project. Participants were able to select “I AGREE – Continue on to Survey,” or “I DO NOT Agree – Exit.” See Appendix B for the informed consent text and an example of how consent was given.

Participants had to report being 18 years or older. They also had to identify as gay, lesbian, or bisexual. They had to report being in a current same-gender relationship of at least 6 months, or to have been in a 6-month long relationship within the previous 5 years. If a person identified as straight or did not meet the relationship criteria, s/he was excluded. Participants were also excluded if they were not at least 18 years of age.

Appendix A also has examples of the recruitment ads that were used to attract participants. These ads were placed on Facebook.com with qualifiers that they were to be displayed to people who resided in the US, were over 18 years of age, in a relationship, and interested in the following key words: Bisexuality, Lesbian, Queer, LGBT, Gay, same-sex marriage, gay marriage, civil union, and sexual orientation. With these settings, the ads displayed for Facebook reached 800,264 people, with 754 clicking on the ads and arriving at the landing page ([www.lgbresearch.org](http://www.lgbresearch.org)). The ads for Google Adwords were restricted to similar characteristics, with the following keywords: relationship, sweepstakes, research, gay

relationships, gay relationship, lesbian relationship, gay, bisexual, lesbian, relationships, gay marriage, gift certificates, couple, online studies, gay websites, same sex, same sex marriage, gay online, bisexual research, gay boyfriends, gay research, same sex couple, same-sex, bisexual resource center, gay relationship problems, gay marriage articles, same gender marriage, same gender couple, same-sex couple, lesbian research, same gender, same-gender, LGBT websites, gay marriage status, affirmative research, same-gender couple, couple research, website for gay black male research. The Google Adwords account received 1,092,077 impressions (views), with 609 people clicking on the advertisement and proceeding to the landing page. Because the Facebook and Google Adwords may have attracted the same potential participants,  $N=609$  would be a conservative estimate of potential participants. A total of 516 actually reached the informed consent page.

Participants had the option upon completion of the survey to be entered to a drawing to win one of ten \$25 gift certificates from an online vendor of their choosing. Participants had to select that they opted into the drawing and freely gave their email address. They also had the opportunity to receive a summary of the results, and/or to be placed in a pool for contact for further research opportunities. At the conclusion of the research, winners were selected based on assignment of a random number to their email address, and then using random.org to select 10 random numbers within the range of participants. Winners were contacted via email, and asked to confirm their win and their choice for gift certificate. Upon confirmation, the gift certificate was delivered electronically. Initially, 10 participants were selected, 5 responded. Another 5 were selected, 3 responded. A final 2 were selected, and responded. A total of 350 people entered the drawing.

## **Participants**

The final sample of 295 participants is described in Table 3.1. Of the total sample, 251 were white, 14 were Black/African American, 24 were Hispanic/Latino, 10 were Asian/Pacific Islander, and 8 were Native American/Indian. Age varied from 18 to 78 years of age, with a mean of 34. Of the 295, 121 identified as Lesbian, 118 as Gay, 31 as Bisexual, and 25 as Queer. There were 148 Females, 127 Males, 5 Transgender, and 13 people identified as Gender Queer. Two people did not respond to the gender question. As to their geographic location, 24 were from the Northwest, 29 from the Southeast, 131 from the Midwest, 24 from the South Central, 49 from the Northeast, and 37 from the Southeast US. One person who did not respond to which area of the US they lived in; however, 55% of respondents came from other than the Midwest. Eighty three people lived in rural settings, while 208 lived in urban areas, with 4 people not responding. I also asked respondents how long they have been “out,” in terms of months. The range of scores on months started at 0, “just came out,” to 720 months (60 years). The mean time “out” was 138 months – 11.5 years.

## **Online Data Collection**

Data were collected online via Survey Monkey. Potential participants were sent initially to the website <http://www.lgbresearch.org>, established for the purpose of this research. On the main landing page of this website, they were provided with more information on the survey. Should they choose to participate, they were able to click a link that took them to the actual survey, starting with the informed consent text. Survey Monkey has password-protected servers and accounts, and the data were encrypted for security. As part of the setup of the online survey, internet protocol (IP) addresses were not tracked or recorded, nor was any identifying information gathered beyond descriptive information. This was to safeguard the privacy of



participants. In order to prevent multiple entries from one person, Survey Monkey placed a “cookie” in the browser memory of the computer of the participant that blocked multiple entries. Utilizing Survey Monkey as a research tool has several benefits. Items, pages, and entire assessments can be scrambled. Prior to April 24, 2012, qualitative data were collected first ( $N=251$ ). After that point, the quantitative data were collected first ( $N = 256$ ).

**Online data collection procedures.** Quantitative data were collected with three different instruments in the following order: Scale for Assessing Same-gender Couples (SASC; developed for this research), Revised Dyadic Adjustment Scale (RDAS; Busby, Christensen, Crane, & Larson, 1995), and the Outcome Questionnaire 45.2 (OQ; Lambert et al., 1996). One advantage of using Survey Monkey to conduct these assessments is that the item order was randomized for each participant. There was also a basic demographic survey that respondents completed prior to the qualitative or quantitative portion of the study. Demographic information was collected first in order to gather the information quickly before attrition of participants. As the SASC was seen as the most important measure for participants to complete, it was presented after the section on demographic data. The RDAS was second as a comparative measure of couple satisfaction, followed by the OQ.

## **Instruments**

### **Revised Dyadic Adjustment Scale**

The 14-item Revised Dyadic Adjustment Scale (RDAS, Appendix D; Busby et al., 1995) was derived from the original Dyadic Adjustment Scale (DAS; Spanier, 1976). Both versions of the Dyadic Adjustment Scale have been used extensively in research on couple satisfaction and adjustment, and both are among the most widely used scales in couple therapy. Busby et al. administered the DAS to non-distressed and distressed couples recruited from a CFT clinic

setting. A confirmatory factor analysis (CFA) yielded three factors: Satisfaction, Consensus, and Cohesion. Construct validity was supported by correlation with scores on the older Locke-Wallace Marital Adjustment Test (Crane, Allgood, Larson, & Griffin, 1990). Criterion validity was assessed in comparison to scores of the original DAS. The RDAS was actually more accurate than the DAS at correctly classifying previously-identified nondistressed respondents. The RDAS Satisfaction subscale had the highest rate of false positives (over-identification of non-distressed couples as distressed) and was the most sensitive to relationship characteristics, i.e., better able to distinguish among levels of cohesion, satisfaction, and consensus. Internal consistency statistics and split-half reliability were both within acceptable limits (Busby et al.). Since the publication of the RDAS, it has become the dominant scale for use in determining distressed vs. nondistressed couples in clinical settings. This scale was included to (a) to assess content and criterion validation of the SASC in comparison to the RDAS, and (b) to create a more broadly based sample for the RDAS with same-gender couples. As noted in Chapter II, the RDAS has been used to assess individual LGB persons' satisfaction with their relationship (Kurdek, 2005). For the present sample, Cronbach's alpha was .83 for the full scale, .71 for the Consensus subscale, .78 for the Satisfaction subscale, and .72 for the Cohesion subscale.

### **Outcome Questionnaire 45.2**

The Outcome Questionnaire 45.2 (OQ, Appendix E; Lambert et al., 1996) is a 45-item self-report measure in which respondents mark their level of distress with a specific symptom on a Likert scale. The response is made in reference to the past week. The OQ initially was developed to measure therapy outcome in terms of intrapersonal psychological distress. It has been used also to measure interpersonal distress and social role issues. Reliability of the OQ was evaluated with test-retest statistics and measures of internal consistency. Validity was assessed

through concurrent validity with several other scales measuring anxiety, depression, and social role distress (Lambert et al.). The OQ was included in this study to address individual issues assessed by the Social Role and Interpersonal Distress scales, in comparison to reported relationship satisfaction on the SASC and RDAS. The third OQ subscale, Interpersonal Distress, also was used to test for relationships between level of psychological distress and RDAS and SASC responses. For the present sample Cronbach's alpha was .94 for the full scale, .93 for the Symptom Distress subscale, .75 for the Interpersonal Distress, and .71 for the Social Role subscales.

### **Basic Demographics Survey**

This survey included questions that qualified or disqualified potential participants based on characteristics, as well as gathered demographic data such as age, area of the country, how long "out," gender identity, and primary sexual orientation/attraction of participants. The questions and format are presented in Appendix F.

### **Scale Development**

**Initial Development of the SASC.** For the present study, a pool of 19 items was selected from the Relationship Assessment Measure for Same-Sex Couples (RAM-SSC; Burgoyne, 2001). Selection of items was based on a sort of the 90-item RAM-SSC items by 200 undergraduate students. Items were presented on a screen, and respondents were asked to place each item into one of Burgoyne's nine original "subscale" categories. Items scattered across several of the sorting categories were eliminated as were any classified as "doesn't fit." Only those items where at least 50% of the respondents agreed as to category were considered for inclusion. All item duplicates were eliminated. An oblimin principal component analysis (PCA) of the 90 items yielded 34 factors with eigenvalues above 1.0. Most eigenvalues were less than

2.0. Many items loaded across more than one factor, not matching the nine subscales Burgoyne initially proposed. Because many items loaded across factors and there were so many factors, the main determinant for inclusion in the new scale was the level of agreement by the student sorters. The final 19 items that were selected are listed in Table 3.2 and Appendix G.

Examining the original and surviving SASC items, it was clear that they did not address some of the issues faced by same-gender couples that have been described in the literature. An additional 11 items were created by the author and added to the 19 to cover issues of social and familial support, as well as identity negotiation. All items were edited to have a 7-point Likert-type item design, allowing for greater variance in response than the original true/false format (Burgoyne, 2001). Further, editing the items to match a Likert scale allowed them to fit into an Item Response Model, allowing for more advanced statistical analysis.

**Factor Analysis.** Exploratory Factor Analysis (EFA) was conducted with the data collected from the SASC. EFA was chosen to take a non-assumption approach to the number of factors that would be provided during analysis. A sample size of 277 was utilized (item:respondent = 1:9.2). Eigenvalues over 1.0 were used as the ‘cut-off,’ as well as when at least 60% of the variance of test could be explained by the given factors (Kline, 1994). The initial EFA resulted in nine factors with an eigenvalue above 1.0. A varimax rotation was used. After an initial factor solution was interpreted, further confirmatory factor analyses (CFA) were conducted to determine final factor structure. Through examination of the rotated factor loadings, along with the item correlations for the reliability analysis, individual items from the SASC were identified which had loading characteristics that were similar across several factors or did not load on any factor. Also, the reliability analysis indicated that these items did not improve reliability. In fact, each of these items reduced the overall reliability of the measure when

included. The “worst” item was selected (the item that had the worst factor loading configuration, and largest negative impact on reliability) and removed from analysis and from the scale itself. This was done six times before reliability (Cronbach alpha) did not improve, and the factor structure remained stable. See Table 3.3 for reduction technique and values. Table 3.2 has the final 24 items with factor loadings.

The scree plot from the factor analysis with 24 items was examined (See Figure 3.1) to determine the appropriate number of factors. A clear “elbow” or distinction between factors was indicated at roughly the third factor. This was also confirmed mathematically by looking at the differences among the eigenvalues. A CFA was conducted with three factors, which resulted in fewer cross loadings. However the third factor items all also loaded on to either the first or second factor. Therefore, a final CFA was run limited to two factors. The resulting two-factor model had only two cross loading between the factors. Examining the items indicated that the two-factor model was theoretically sound. Most items loading on Factor 1 are about relationship satisfaction (several from the RAM-SSC). The second factor is comprised of items specifically asking about social and familial support (Table 3.2).

**Final Version of the SASC.** The final version of the SASC was comprised of 24 items. There are two subscales apparent via factor analysis: Relationship Satisfaction and Social Support. Table 3.2 lists items by subscale. Reliability and validity of the SASC (H1 and H2). To evaluate the reliability of the reversed SASC, Cronbach alphas were computed for the full scale and each subscale and the results of the final factor analysis were examined. Validity of the SASC was evaluated by examining the correlations between the SASC and its subscales and the RDAS and its subscales as well as the OQ subscales.

## **Reflexivity and Positionality of the Researcher**

In any research, reflexivity is important as the first step in research, in order to identify presuppositions and biases of the researcher. Exploring this bias and acknowledging its influence is an important first step in establishing trustworthiness of the data (Creswell, 2007). While quantitative researchers do not often address such issues, it is clear from the example of the MMPI and MMPI-2 that quantitative research cannot be considered free from bias.

**Positionality.** As a white, straight male, I have several privileges in life. I come from a place of power in society, and have never had to experience the same discrimination or oppression as my participants. I also hold an advanced graduate degree, and am pursuing a doctorate. With the combination of these characteristics, I am removed from the daily struggles many people face. Any reactions to the qualitative and quantitative data were kept in a journal format, and perused to determine if bias was becoming an issue in interpretation and analysis.

**Reflexivity.** Personally, I believed that this research would show that same-gender couples experience a wide range of difficulties and stressors unique to their relationships compared to their heterosexual counterparts. This belief comes from doing research with samples of LG persons over several years, as well as being familiar with the current research literature on same-gender couples. I believe that social support and family support play a major role in how satisfactory a relationship will be. I also have biases about the benefits of this study, and believe that the outcomes can provide useful information that can be used to help same-gender couples within a therapeutic context.

## Analyses

### Data Analysis

All three measures were used for analysis. The main goal of the quantitative portion of this study was to examine the evidence for the SASC's validity and reliability. A secondary goal of the quantitative portion was to provide a normative sample for the RDAS for use with same-gender couples. Quantitative data were separated by the sexual orientation of the respondents for some analyses.

**Reliability (H1).** Cronbach's alpha (Cronbach, 1951) levels were also used to determine inter-item consistency, with the criterion of obtaining an alpha level of at least .70 (Carmines & Zeller, 1979).

**Validity (H2).** Validity for this study was determined through criterion, construct, and content validity (see below). Alpha level for significance results was set at .05.

**Criterion.** Criterion validity consists of two different types, predictive and concurrent validity. Predictive validity measures whether the instrument can effectively predict outcomes in the future, whereas concurrent validity correlates the measure with instruments that have been shown effective. In this study, predictive validity was not possible. The focus of the criterion validity for this study was concurrent, correlating the SASC with the results of the RDAS and the OQ subscales.

**Content.** Content validity is the extent to which a measure is actually measuring what it purported to measure, based on known characteristics (Domino & Domino, 2006). Content validity for the SASC began with the use of items from a previous measure published in a peer-reviewed journal. Items that were added were based on empirical research on topics not

originally addressed in the measure. In the analysis, content validity was also assessed through factor analysis, in determining whether the items loaded onto subscales/factors as expected.

***Construct.*** Construct validity measures whether the overall instrument construction, including items and subscales, accurately measures the proposed construct (Domino & Domino, 2006). Some statisticians lump criterion and content validity under construct validity, an umbrella term to describe validity of tests. In this study, construct validity was separated out to assess for convergent and discriminant validity (Campbell & Fiske, 1959). Convergent validity was measured through factor analysis and assessing whether the subscales or factors produced were, in fact, meaningful scales, as well testing for correlation with the RDAS and Interpersonal subscale of the OQ. Because unhappy relationships interact with psychological distress, it was assumed that there would be a positive correlation with the OQ subscale: Interpersonal Distress.

***Discriminant.*** Discriminant validity (the fact that the measure is not highly correlated with an unrelated measure) was examined through a correlation between the overall score of the SASC and the Social Role subscale score of the OQ.

**Item Response Modeling (H3).** Item Response Modeling (IRM) is the statistical approach to Item Response Theory. IRM attempts to provide evidence of item-level fit characteristics based on a latent trait, referred to as theta ( $\theta$ , Embretson & Reise, 2000). There are several models available for analysis within IRM; however, the model that best fits the data collected for this study is the Graded Response Model (Samejima, 1969; 1996). The Graded Response Model is capable of estimating probabilities based on Likert-type polytomous items that are “graded” or categorized into related outcomes (e.g., “strongly disagree” to “strongly agree”). IRM does not have cut-and-dried rules of interpretation. There are several schools of thought as to how to use data provided through the model; however, most psychometricians



agree that IRM should be used as a method of understanding how well an item is “behaving” or “predicting” the latent trait ( $\theta$ ) to which the scale is attempting to measure. IRM can also be used as a data reduction technique; as it is mathematically similar to factor analysis.

The software program IRTPRO 2.1 was used for calculation and estimation of the model (Scientific Software International, 2011). IRTPRO 2.1 provides item-level characteristics, as well as providing graphical representation of the information. IRM was not used in this research as a method of data reduction, but was used to provide further evidence as to the validity and capabilities of the SASC.

**Analysis of Covariance and Multiple Analysis of Variance (H4).** ANCOVAs are a statistical tool to assess for group differences through analysis of variance. ANCOVA is based on a single dependent variable, controlling for the effects of one or more covariates. In an effort to answer the hypothesis, “*The SASC can be used to identify individuals in distressed and non-distressed relationships,*” an initial ANCOVA was conducted with the SASC total scores as the dependent variable. Age was entered as a categorical covariate. The results of the ANCOVA were used to guide further analysis with a MANOVA. A MANOVA was conducted with the SASC subscales (two factors) as dependent variables, and the RDAS total score categories (1 = score < 48, 0 = score > 48) as the independent variable.

**Cluster Analysis (H5).** The  $k$ -means cluster analysis was used to identify specific groups of participants with similar responses on the RDAS (full scale) and OQ subscales (Everitt, Landau, Leese, & Stahl, 2011). This was done to get a better understanding of the respondents, and allowed for a more detailed understanding of how relationship satisfaction differed according to variables such as sexual orientation identification and psychological and personal distress.

## **Missing/Incomplete Data**

Initial data analysis revealed whether missing data were missing completely at random (MCAR), missing at random (MAR), or not missing at random (NMAR) (Schlomer, Bauman, & Card, 2010). The determination of the type came from an analysis to determine the apparent randomness of the missing data. Data that began and then stopped abruptly, e.g., primarily due to drop-out, are NMAR type of missing data. If only a few items on a scale were missing, they were considered MAR, the preferred type of missing data for analysis. It is not possible to determine whether data is MCAR or MAR.

NMAR data were identified by determining whether the participant failed to fill out a questionnaire at all or left out a majority of the questionnaire. Data that are NMAR were excluded, list-wise, from the data set for that questionnaire. For example, if a participant filled out the RDAS, but only ten items on the OQ, data from the RDAS were used for analysis, but no information for the OQ was used.

MAR data were handled using the Maximum Likelihood method of Expectation Maximization (EM) (Roth, 1994). EM has been shown to provide unbiased estimates of item values, particularly helpful when conducting factor analysis and internal consistency calculations. EM values were calculated through a recursive process. Initially, descriptive statistics were developed from available data for the missing item. Then, these preliminary numbers were regressed with the initial values to provide the new values for missing data (Schlomer et al., 2010). IBM-PASW (SPSS) software can compute these values during factor analysis or independently.

**Table 3.1***Characteristics of Sample Population*

|                       |              | Ethnicity                  |                          |                          |                          |                          |                           | TOTAL                      |
|-----------------------|--------------|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|----------------------------|
|                       |              | Caucasian                  | Black / African American | Hispanic / Latino        | Asian / Pacific Islander | Native American / Indian | Multi-Ethnicity / Other   |                            |
| Sexual Orientation    | Lesbian      | 92<br>31.3%                | 9<br>3.1%                | 6<br>2%                  | 1<br>.3%                 | 0<br>0%                  | 13<br>4.4%                | <b>121</b><br><b>40.6%</b> |
|                       | Gay          | 98<br>33.3%                | 1<br>.3%                 | 6<br>2%                  | 2<br>.7%                 | 2<br>.7%                 | 9<br>3.1%                 | <b>118</b><br><b>40.1%</b> |
|                       | Bisexual     | 22<br>7.5%                 | 2<br>.7%                 | 1<br>.3%                 | 1<br>.3%                 | 0<br>0%                  | 4<br>1.4%                 | <b>30</b><br><b>10.2%</b>  |
|                       | Queer        | 19<br>6.5%                 | 0<br>0%                  | 2<br>.7%                 | 0<br>0%                  | 0<br>0%                  | 4<br>1.4%                 | <b>25</b><br><b>8.5%</b>   |
|                       | <b>TOTAL</b> | <b>231</b><br><b>78.6%</b> | <b>12</b><br><b>4.1%</b> | <b>15</b><br><b>5.1%</b> | <b>4</b><br><b>1.4%</b>  | <b>2</b><br><b>.7%</b>   | <b>30</b><br><b>10.2%</b> | <b>294</b><br><b>100%</b>  |
| Gender Identification | Female       | 113<br>38.7%               | 11<br>3.8%               | 6<br>2.1%                | 1<br>.3%                 | 0<br>0%                  | 17<br>5.8%                | <b>148</b><br><b>50.7%</b> |
|                       | Male         | 104<br>35.6%               | 0<br>0%                  | 7<br>2.4%                | 3<br>1%                  | 2<br>.7%                 | 11<br>3.8%                | <b>127</b><br><b>43.5%</b> |
|                       | Transgender  | 3<br>1%                    | 1<br>.3%                 | 1<br>.3%                 | 0<br>0%                  | 0<br>0%                  | 0<br>0%                   | <b>5</b><br><b>1.7%</b>    |
|                       | Genderqueer  | 9<br>3.1%                  | 0<br>0%                  | 1<br>.3%                 | 0<br>0%                  | 0<br>0%                  | 2<br>.7%                  | <b>12</b><br><b>4.1%</b>   |
|                       | <b>TOTAL</b> | <b>229</b><br><b>78.4%</b> | <b>12</b><br><b>4.1%</b> | <b>15</b><br><b>5.1%</b> | <b>4</b><br><b>1.4%</b>  | <b>2</b><br><b>.7%</b>   | <b>30</b><br><b>10.3%</b> | <b>292</b><br><b>100%</b>  |

Table 3.1 (cont'd)

|                |               | Ethnicity                  |                          |                          |                          |                          |                           |                            |
|----------------|---------------|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|----------------------------|
| Area of the US |               | Caucasian                  | Black / African American | Hispanic / Latino        | Asian / Pacific Islander | Native American / Indian | Multi-Ethnicity / Other   |                            |
|                | Northwest     | 19<br>6.5%                 | 1<br>.3%                 | 3<br>1%                  | 0<br>0%                  | 0<br>0%                  | 1<br>.3%                  | <b>24</b><br><b>8.2%</b>   |
|                | Southwest     | 23<br>7.8%                 | 1<br>.3%                 | 3<br>1%                  | 0<br>0%                  | 0<br>0%                  | 2<br>.7%                  | <b>29</b><br><b>9.9%</b>   |
|                | Midwest       | 108<br>36.9%               | 4<br>1.4%                | 2<br>.7%                 | 2<br>.7%                 | 0<br>0%                  | 15<br>5.1%                | <b>131</b><br><b>44.7%</b> |
|                | South Central | 17<br>5.8%                 | 0<br>0%                  | 2<br>.7%                 | 0<br>0%                  | 1<br>.3%                 | 4<br>1.4%                 | <b>24</b><br><b>8.2%</b>   |
|                | Northeast     | 35<br>11.9%                | 3<br>1%                  | 2<br>.7%                 | 1<br>.3%                 | 1<br>.3%                 | 7<br>2.4%                 | <b>49</b><br><b>16.7%</b>  |
|                | Southeast     | 28<br>9.6%                 | 3<br>1%                  | 3<br>1%                  | 1<br>.3%                 | 0<br>0%                  | 1<br>.3%                  | <b>36</b><br><b>12.3%</b>  |
|                | <b>TOTAL</b>  | <b>231</b><br><b>78.5%</b> | <b>12</b><br><b>4.1%</b> | <b>15</b><br><b>5.1%</b> | <b>4</b><br><b>1.4%</b>  | <b>2</b><br><b>.7%</b>   | <b>30</b><br><b>10.2%</b> | <b>294</b><br><b>100%</b>  |

Table 3.1 (cont'd)

|                       |             | Sexual Orientation |              |           |            |              |
|-----------------------|-------------|--------------------|--------------|-----------|------------|--------------|
|                       |             | Lesbian            | Gay          | Bisexual  | Queer      | TOTAL        |
| Gender Identification | Female      | 115<br>39.2%       | 0<br>0%      | 1<br>.3%  | 3<br>1%    | 119<br>40.6% |
|                       | Male        | 1<br>.3%           | 116<br>39.6% | 1<br>.3%  | 0<br>0%    | 118<br>40.3% |
|                       | Transgender | 20<br>6.8%         | 8<br>2.7%    | 1<br>.3%  | 2<br>.7%   | 31<br>10.6%  |
|                       | Genderqueer | 12<br>4.1%         | 3<br>1.0%    | 2<br>.7%  | 8<br>2.7%  | 25<br>8.5%   |
|                       | TOTAL       | 148<br>50.5%       | 127<br>43.3% | 5<br>1.7% | 13<br>4.4% | 293<br>100%  |

|                |               |              |              |             |            |              |
|----------------|---------------|--------------|--------------|-------------|------------|--------------|
| Area of the US | Northwest     | 7<br>2.4%    | 10<br>3.4%   | 2<br>.7%    | 5<br>1.7%  | 24<br>8.2%   |
|                | Southwest     | 13<br>4.4%   | 12<br>4.1%   | 2<br>.7%    | 2<br>.7%   | 29<br>9.9%   |
|                | Midwest       | 56<br>19%    | 51<br>17.3%  | 12<br>4.1%  | 12<br>4.1% | 131<br>44.6% |
|                | South Central | 12<br>4.1%   | 11<br>3.7%   | 1<br>.3%    | 0<br>0%    | 24<br>8.2%   |
|                | Northeast     | 17<br>5.8%   | 19<br>6.5%   | 9<br>3.1%   | 4<br>1.4%  | 49<br>16.7%  |
|                | Southeast     | 16<br>5.4%   | 15<br>5.1%   | 4<br>1.4%   | 2<br>.7%   | 37<br>12.6%  |
|                | TOTAL         | 121<br>41.2% | 118<br>40.1% | 30<br>10.2% | 25<br>8.5% | 294<br>100%  |

Table 3.1 (cont'd)

|                                     |               | Gender Identification |              |             |             | TOTAL        |
|-------------------------------------|---------------|-----------------------|--------------|-------------|-------------|--------------|
|                                     |               | Female                | Male         | Transgender | Genderqueer |              |
| Area of the US Participant Lives In | North West    | 8<br>2.7%             | 11<br>3.8%   | 1<br>.3%    | 4<br>1.4%   | 24<br>8.2%   |
|                                     | South West    | 15<br>5.1%            | 13<br>4.5%   | 1<br>.3%    | 0<br>0%     | 29<br>9.9%   |
|                                     | Midwest       | 71<br>24.3%           | 53<br>18.2%  | 2<br>.7%    | 4<br>1.4%   | 130<br>44.5% |
|                                     | South Central | 10<br>3.4%            | 11<br>3.8%   | 1<br>.3%    | 1<br>.3%    | 23<br>7.9%   |
|                                     | North East    | 27<br>9.2%            | 20<br>6.8%   | 0<br>0%     | 2<br>.7%    | 49<br>16.8%  |
|                                     | South East    | 16<br>5.5%            | 19<br>6.5%   | 0<br>0%     | 2<br>.7%    | 37<br>12.7%  |
| TOTAL                               |               | 147<br>50.3%          | 127<br>43.5% | 5<br>1.7%   | 13<br>4.5%  | 292<br>100%  |

**Table 3.2***Final SASC Scale with Item Factor Loadings*

| <b>Final<br/>Item<br/>Number</b> | <b>Original<br/>Item<br/>Number</b> | <b>Item</b>   | <b>Factor</b>  |   |
|----------------------------------|-------------------------------------|---|--|---|
|                                  |                                     |   | <i>1</i><br><i>Relationship</i><br><i>Satisfaction</i> | <i>2</i><br><i>Social</i><br><i>Support</i> |
| 1 <sup>R</sup>                   | 1                                   | There are some things about my partner that I do not like.  | .517   |   |
| 2 <sup>R</sup>                   | 2                                   | I wish my partner enjoyed more of the activities that I enjoy.  | .569   |   |
| 3                                | 3                                   | My mate has the qualities I want in a partner.  | .588   |   |
| 4                                | 4                                   | My partner and I share the same values and goals in life.   | .576   |   |
| 5*                               | 9                                   | My partner and I have an active social life.  | .390   |   |
| 6                                | 12                                  | My partner's sociability adds a positive aspect to our relationship.                                      | .612   |   |
| 7                                | 13                                  | If there is one thing that my partner and I are good at, it's talking about our feelings with each other. | .697   |   |
| 8                                | 14                                  | Our differences of opinion lead to shouting matches.  | .541   |   |
| 9 <sup>R</sup>                   | 15                                  | I would lie to my partner if I thought it would "keep the peace."   | .390   |   |
| 10                               | 16                                  | During our arguments, I never put down my partner's point of view.  | .369   |   |
| 11                               | 18                                  | When there is a difference of opinion, we try to talk it out rather than fight.                           | .690   |   |
| 12                               | 19                                  | We always do something to mark a special day in our relationship, like an anniversary.                    | .448   |   |

Table 3.2 (cont'd)

|                 |    |   |      |
|-----------------|----|---|------|
| 13              | 20 | I often tell my partner that I love him/her.                              | .528 |
| 14 <sup>R</sup> | 22 | Sometimes sex with my partner seems more like work than play to me.       | .583 |
| 15              | 23 | I always seem to be in the mood for sex when my partner is.               | .509 |
| 16 <sup>R</sup> | 25 | My partner sometimes turns away from my sexual advances.                  | .456 |
| 17*             | 5  | My family accepts my relationship with my partner.                        | .707 |
| 18*             | 6  | My partner's family accepts our relationship.                             | .607 |
| 19*             | 7  | My family would support our decision to adopt or have children.           | .700 |
| 20*             | 8  | My partner's family would support our decision to adopt or have children. | .633 |
| 21*             | 10 | I feel as though my relationship is generally accepted by my friends.     | .553 |
| 22*             | 11 | I have a strong support system that accepts me as I am.                   | .569 |
| 23*             | 27 | I have told my co-workers about my sexual orientation/attraction.         | .359 |
| 24              | 28 | Most of my family members know about my sexual orientation/attraction.    | .385 |

---

*Extraction Method: Principal Components*

*Rotation Method: Varimax – Rotation converged in 3 iterations*

*R = Reverse score item*

*\* = Social/family support item added from relevant literature*



**Table 3.3***Item Reduction Logic—Number of Items Reduced from 30 to 24.*

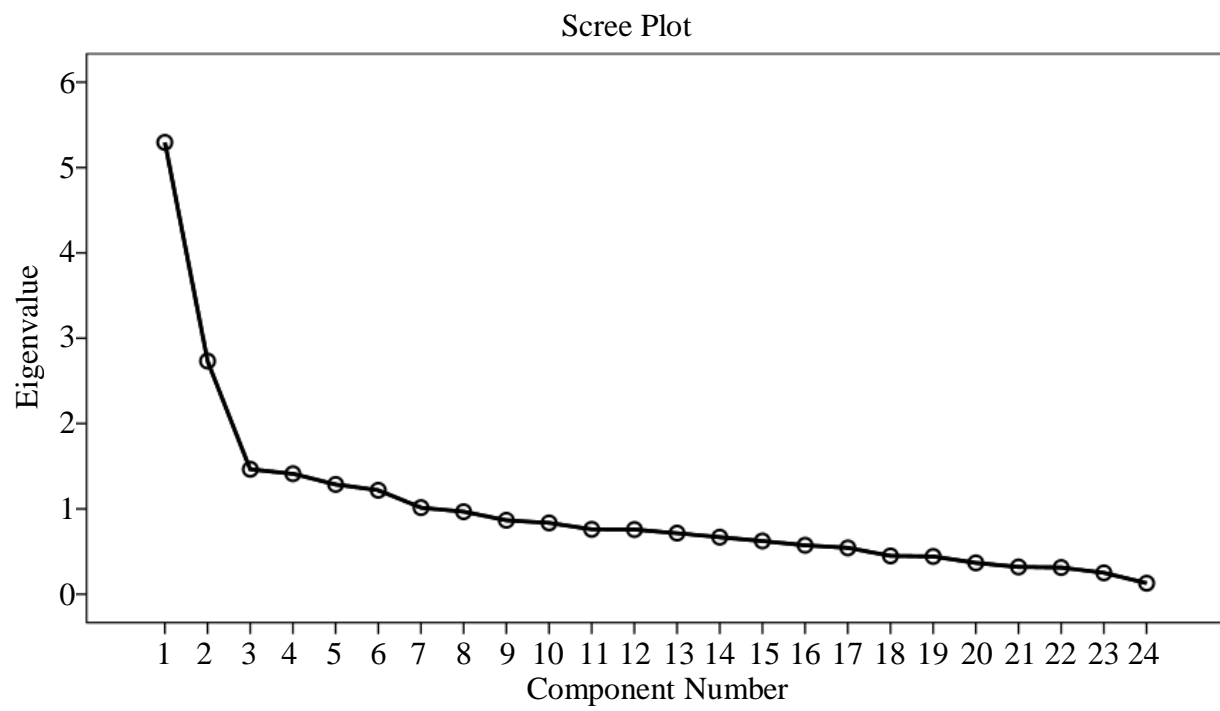
| Reliability<br>/ EFA<br>Run<br>Number | Overall<br>Scale<br>Reliability | Number<br>of<br>Factors<br>Extracted | Item to be Deleted   | Logic                             |  |
|---------------------------------------|---------------------------------|--------------------------------------|--|-----------------------------------|--|
|                                       |                                 |                                      |  | Reliability<br>if Item<br>Deleted | Factor<br>Loading                                |
| 1                                     | .778                            | 9                                    | Sometimes, one of us gets mad and gives the other the silent treatment.                | .802                              | 8 <sup>^</sup>                                   |
| 2                                     | .800                            | 9                                    | Our sexual relationship influences our level of closeness.                             | .806                              | 8 <sup>^</sup>                                   |
| 3                                     | .805                            | 9                                    | Our sexual relationship decreases my frustration with other parts of our relationship. | .814                              | 2 <sup>^</sup> , 8 <sup>^</sup>                  |
| 4                                     | .813                            | 7*                                   | Sometimes, I am afraid that people will see a part of me of which I am not aware.      | .813                              | None   |
| 5                                     | .813                            | 3*                                   | Being active in the gay community is important to me.                                  | .813                              | None   |
| 6                                     | .813                            | 3*                                   | When I meet people, I hesitate to tell them about my sexual orientation /attraction.   | .817                              | 1 <sup>^</sup> , 2 <sup>^</sup> , 3 <sup>^</sup> |
| 7                                     | .817                            | 2*                                   | None   | All<br>decrease                   | Appropriate                                      |

\* - Forced factor load

<sup>^</sup> - Minimal factor loading (>.350)

**Figure 3.1**

*Scree Plot*



## CHAPTER IV

### RESULTS

#### Data Cleaning

Initially, data were downloaded in raw format from SurveyMonkey.com, and imported into Excel. Once in Excel, the data were cleaned with regards to variable names in the first row, removal of blank fields (SurveyMonkey.com automatically adds data columns for things like IP address, even if they are not collected), and the addition of a case ID number. Case ID numbers were created based on a simple numerical system. A variable was added to distinguish between data collected prior to April 24<sup>th</sup>, 2012 ( $n = 237$ ), and data collected after that date ( $n = 279$ ). This is the date on which the order of data collection was switched from qualitative data collection first, quantitative second, to quantitative first, qualitative second.

The data were scanned to discover if any individual had not consented to participate in the study. There was one set of data for which the respondent did not complete the consent. Those data were removed from analysis. Then, a visual inspection of the data identified several completely blank data sets (e.g., respondent selected “Yes” to agree to take survey, then quit). All of these null sets were removed. Finally, all qualitative data were removed to a separate file and saved for later analysis. This resulted in an Excel file that had been initially cleaned for import to SPSS software for analysis.

A total of 516 individuals began the survey, 392 completed at least part of the survey. Of the 392 who completed, 350 entered the drawing for the gift card. After data were entered into SPSS, a filter was run to determine useable data. The filter sorted out records that had less than 80% of data present, in an effort to determine whether data were missing at random or not. Those respondents' data were removed from the dataset. This resulted in a total  $N$  of 295 respondents.

## Results of Analysis

**SASC Descriptive Statistics.** Means, standard deviations and medians were computed for the SASC total and subscale scores ( $N=282$ ): Total SASC,  $M = 107$ ,  $SD = 16$ ,  $Median = 108$ ; Relationship Satisfaction,  $M = 68$ ,  $SD = 13$ ,  $Median = 69$ ; Social Support,  $M = 38$ ,  $SD = 7$ ,  $Median = 39$ .

### ***H1: The SASC will demonstrate evidence of reliability.***

The reliability of the SASC was assessed using Cronbach's alpha with the entire SASC scale. The two factors identified through factor analysis were also tested for reliability. For the entire scale (final, 24-item version), Cronbach's alpha level was .82. Factor 1 ("Relationship Satisfaction") had an alpha level of .83, and Factor 2 ("Social and Familial Support", shortened to "Social Support") had an alpha level of .72. These levels are at acceptable levels of internal consistency.

### ***H2: The SASC will demonstrate evidence of validity.***

Correlations between the SASC total score (as computed by summing all 24 items of the revised SASC) and the RDAS Total and subscales scores addressed issues of convergent validity (Table 4.1). There was a significant positive correlation between the SASC total score and each subscale and the total score of the RDAS ( $p < .01$ ). Other correlations were used to examine the relationships between the SASC and the OQ-45 scales. It was expected that as the overall relationship satisfaction increased, a person's scores on the OQ would decrease. Table 4.2 presents the correlations between the SASC total scores and SASC subscales and the OQ total and subscale scores. There is a significant negative correlation between the SASC total score and all subscales of the OQ ( $r_s = -.372$  to  $-.620$ ). As expected, there was a significant negative correlation between the SASC Relationship Satisfaction scale and the OQ Symptom Distress

subscale ( $r = -.361$ ). This is consistent with research that indicates a relationship between increased relationship satisfaction and decreased life distress.

To provide evidence of discriminant validity, the SASC Total Score was predicted to have no significant correlation with the OQ Social Role scale. However, the SASC Total score has a significant negative correlation ( $r = -.372, p < .01$ ) with the OQ Social Role subscale, indicating that as Social Role distress declined total scores on the SASC. Instead of providing evidence for discriminant validity, the opposite was shown, providing additional convergent validity evidence for the SASC, in showing that the overall relationship satisfaction increases as social role strain decreases.

A Fisher's  $z$ -test of the correlations (Table 4.3) between SASC Relationship Satisfaction (SASC-R) and the OQ subscales (IR, SR, and SD) and between SASC Support (SASC-S) and the OQ subscales indicated that only the SASC-R/OQ-IR correlation was significantly larger than the SASC-S/OQ-IR correlation. This finding supports the assertion that the SASC-R scale is more sensitive to interpersonal relationship issues than the SASC-S.

***H3: Item Response Theory Modeling will show that the items of the SASC provide evidence that they measure relationship satisfaction.***

A unidimensional, graded response model was utilized in the analysis of the two factors of the SASC. The two factors were analyzed separately, using IRTPro 2.1. In utilizing an Item Response Model to analyze an instrument, there are five steps to take: 1. examine slope discriminants, 2. compare category thresholds, 3. note significant outcomes on the chi-square test, 4. inspect the graphical output of data (item information curves, test information curves, etc.), and 5. compare and contrast all results.

## Factor 1 – Relationship Satisfaction

**Examine slope discriminants.** A slope discriminant ( $\alpha$ ) value higher than 2 is best, 1 is good, and above .75 is acceptable. The initial examination of the slope discriminant values calculated for the Relationship Satisfaction subscale indicated that most of the items were able to distinguish the latent trait ( $\theta$ ) being measured (in this case, relationship satisfaction). Of the 16 items in Relationship Satisfaction, 10 have a slope discriminant above 1.0, indicating a higher overall ability to distinguish the latent trait. The 6 items below 1.0 are still acceptable, with the lowest slope discriminant being a .76 (item #10). Table 4.4 lists the slope discriminants for all items on the Relationship Satisfaction subscale, as well as the category thresholds, and chi-square diagnostics.

**Compare category thresholds.** Category thresholds, denoted in Table 4.4 as the “c” items (plus subscript number), indicate the item’s ability to distinguish a respondents’ likelihood of choosing one scale category over the adjacent category. In the graded response model, this is calculated as the likelihood of choosing the lowest item (denoted with subscript 1) as compared to the next highest item. As the Likert scale of the SASC is from “Strongly Disagree” to “Strongly Agree” there are 7 categories total, creating 6 category thresholds. Higher numbers on thresholds indicate increased likelihood, while lower numbers show a decrease in sensitivity of the item to distinguish between categories. There were several items that had very high sensitivity within the lower ranks of the category thresholds, indicating that the scale is very good at discovering and reporting when someone will report their relationship as unsatisfactory. Only one item was very good at discovering relationships that are both dissatisfying and satisfying, and that is item #13, *“I often tell my partner that I love him/her.”*

**Chi-square diagnostics.** The chi-square diagnostics are used in IRM to determine whether an item is functioning (“behaving”) the way it is expected to. A non-significant response indicates that there is not a statistical difference between the expected and observed outcome of the item (scores). Significance means that there is a difference, and that the item is considered to be “misbehaving,” i.e., not measuring the trait that it is supposed to. In the case of the relationship satisfaction subscale, only two items had significant chi-square results, #4, “*My partner and I share the same values and goals in life,*” and #15, “*I always seem to be in the mood for sex when my partner is.*”

**Inspection of graphical output.** Figure 4.1 shows the item information curves (IIC) for the items in the relationship satisfaction subscale. IICs show the individual amount of variance and sensitivity (information gathered/shown) for each item on the scale. It can be considered to be a summation of the “numbers” previously examined. The curve is plotted with a Y-axis of “Information” and an X-axis of “theta” or trait level. A good item will have a lot of information, across all levels of trait. A poor IIC will show low levels of information across the traits. For relationship satisfaction, an example of a good IIC is the graph labeled “Item 3.” There are very high levels of information, but only at lower theta ( $\theta$ ) levels. This indicates that item #3 on the relationship satisfaction subscale provides a lot of information for individuals who are unsatisfied in their relationship; however the amount of information gathered by the item tapers off as satisfaction increases. A poorer IIC is exemplified in the graph labeled “Item 15.” This item has a rather flat, low line, indicating that it lacks the ability to provide much information about the trait being measured. For relationship satisfaction, all items provide some level of information, some better than others. The better IICs are for items #3, 4, 6, 7, 8, 11, 13, and 14. Poorer IICs are displayed in items #1, 2, 5, 9, 10, 12, 15, and 16.

Figure 4.2 displays the Total Information Curve (TIC) for the relationship satisfaction subscale. The TIC is a summation of all item information curves. The TIC summarizes the ability of the test to provide information about the trait. Evaluation of the TIC includes examining the Standard Error curve. Where the two meet is the value of theta where the level of error exceeds the amount of reliable information gathered. For the Relationship Satisfaction subscale, a theta level of approximately 1.33 is where the level of error begins to outweigh the amount of reliable information being gathered. This indicates that the Relationship Satisfaction subscale is better at distinguishing individuals who are in dissatisfying relationships.

Figure 4.3 contains the trace lines for each item in the Relationship Satisfaction subscale. Trace lines show each item's ability to predict a respondents' score based on theta level. For example, graph "Item 3" shows that for someone who has a theta level of "0," or is simply neutral in their relationship (neither satisfied nor dissatisfied) is most likely to mark a level "5" on the Likert scale option "Agree." While not necessarily needed for interpretation of item level ability, the trace lines do provide information on the items' ability to predict outcomes and scores. For item 10, the lines overlap and information is less accurate.

## **Factor 2 – Social and Familial Support**

**Examine Slope Discriminants.** All item level parameter estimates are available in Table 4.5. When examining the slope discriminants for the support subscale there is only one item that is below acceptable levels. Item number 23 (*"I have told my co-workers about my sexual orientation/attraction"*) has a slope discriminant of .69, which falls just short of acceptable. All of the other items are acceptable. This indicates that 7 of 8 items are well capable of distinguishing the trait being measured (support), and one item will have more difficulty (#23).



**Compare Category Thresholds.** The category thresholds for Social Support are better than those presented in the Relationship Satisfaction subscale. As shown in Table 4.5, almost all items have positive indicators between levels, providing adequate sensitivity and ability to distinguish between trait levels. The first four items have a negative threshold when distinguishing between the top-most scale indicators. This means that their ability to assess individuals with positive support systems is more difficult.

**Chi-Square Diagnostics.** There were two items with significant chi-square loadings. Items number 18 and 20 were significant at the  $p < .01$  level, indicating that they were not “behaving” or measuring the trait in the way that was expected. Items 6 and 8 were about family support, whereas the rest of the items in the factor were about social and partner support; this may account for the discrepancy in the expected and observed values.

**Inspection of Graphical Output.** Figure 4.4 has the Item Information Curves for the items in the Social Support subscale. Looking at the graphs, items number 17 and 19 account for the most amount of information, while items 18, 20, 21, and 22 provide less information, and items number 23 and 24 provide the least amount of information. The IICs for the Social Support subscale are skewed towards the lower end of the graph, indicating that they provide more information at lower trait levels, as was true for the Relationship Satisfaction subscale.

On the Total Information Curve (Figure 4.5) the information curves and standard error curves cross twice. The first cross is low on the graph, approximately a theta trait of -2.9. The other cross is at a theta trait of approximately 1.1. The Social Support subscale is helpful in providing information about the lack of support, but not strong at uncovering high levels of support. Since the first cross with the standard error is so low on the trait continuum, it is not useful information.

Figure 4.6 displays the trace lines for the Social Support subscale. A person with a trait level of “0” or above, which would indicate a neutral level of support, would have a high item score on all items.

***H4: The SASC can be used to identify individuals  
in distressed and non-distressed relationships***

The strong positive correlations computed in H2 between scores on the SASC and SASC Relationship Satisfaction subscale and scores on the RDAS total and RDAS subscales support the hypothesis that there is a relationship between the SASC total score and SASC Relationship Satisfaction with the underlying quality of “relationship satisfaction.” To further test this concept, an ANCOVA was run with SASC total score as the dependent variable and age as a covariate. The independent variable, was scored “0” if the RDAS Total score was above 48 ( $n = 199$ ) and “1” if equal to or below 48 ( $n = 71$ ).<sup>1</sup> Age was not a significant covariate,  $F(1, 267) = .002, p = .967$ , partial  $\eta^2 = .000$ . However, respondents who scored above 48 on the RDAS had significantly higher SASC total scores,  $F(1, 267) = 150.54, p < .001$ , partial  $\eta^2 = .36$ .

A MANOVA was run with both of the SASC subscales (Relationship Satisfaction and Social Support) as the dependent variables, and the RDAS categories (satisfied vs. dissatisfied) as the independent variable. Although both scales differed significantly based on the RDAS categories, the Relationship Satisfaction subscale accounted for a greater portion of the variance (40%) than did the Social Support subscale (< 5%): Relationship Satisfaction,  $F(1, 267) = 177.07, p < .001$ , partial  $\eta^2 = .40$  vs. Social Support,  $F(1, 267) = 12.75, p < .001$ , partial  $\eta^2 = .05$ .

---

<sup>1</sup> This cutoff of 48 has been used in a number of other studies with heterosexual samples (Busby et al., 1995), and, while not satisfactory in terms of norms for nonheterosexual samples, is the only available cutoff score for the RDAS. The median score for SASC total is 106; 68 for the Relationship Satisfaction subscale; 38 for the Social Support subscale.

Thus, the SASC Relationship Satisfaction subscale is the stronger predictor of relationship satisfaction.

***H5: Groups of participants can be defined by scores on measures of relationship satisfaction and by their levels of psychological and relational distress.***

A Ward *k*-means cluster analysis was conducted as a preliminary step to test whether the SASC subscales were related to meaningful subgroups of respondents. The raw scores for RDAS Total and the OQ Symptom Distress, OQ Interpersonal Relations, and OQ Social Role subscales were used to define the clusters. The cluster solution was limited to 4 groups. To avoid extreme scores serving as centroids in the cluster analysis, the *k*-means analysis was run initially with a randomly-selected sample of 20% of respondents. The resulting centroids were used as the initial cluster centroids for the full sample, including the initial 20%. Results are shown in Table 4.6.

Cluster 1 participants reported high levels of relationship satisfaction and little or no distress on the OQ subscales. Cluster 2 respondents reported less relationship satisfaction than Cluster 1 and more symptom distress, poorer interpersonal relations, and greater social role distress; however, the centroids for this group were above the published OQ cutoff scores. Cluster 3 participants had very low relationship satisfaction, and very high symptom distress, interpersonal relationship distress, and social role distress. Cluster 3 participants had the most extreme scores on all four measures. Cluster 4 respondents showed relationship satisfaction between that of Clusters 1 and 2, but showed considerable symptom distress, elevated distress around interpersonal issues, and the social role centroid was at the level of the cutoff score.

***H6: Relationship satisfaction, as measured by the SASC,  
will vary by age, months out, and gender.***

The MANOVA including the cluster membership, SASC subscales yielded no significant main effect of gender, age category, and months “out” category. The MANOVA and univariate ANOVA results are summarized in Tables 4.7 and 4.8.

A MANOVA was conducted following the cluster analysis that provided a test of both H5 and H6. Univariate ANOVAs were conducted to follow up MANOVA results. SASC Relationship Satisfaction and SASC Social Support subscales served as dependent variables, and cluster membership, gender, age category, and months “out” category served as independent variables. In the MANOVA only cluster membership differentiated among respondents on the two SASC subscales, Wilks  $\lambda = .695$ ,  $F(6, 322) = 10.7$ ,  $p < .001$ , partial  $\eta^2 = .17$ , power = 1.00. Wilks  $\lambda$  was not significant for the other independent variables or for interactions.

Subsequent univariate ANOVAs indicted that SASC subscale differences based on cluster category membership were significant for both SASC Relationship Satisfaction,  $F(3, 162) = 15.04$ ,  $p < .001$ , partial  $\eta^2 = .22$ , power = 1.00, and SASC Social Support,  $F(3, 162) = 9.11$ ,  $p < .001$ , partial  $\eta^2 = .14$ , power = .996. Neither subscale differed by age category, gender, or months “out” category, and there was no significant interaction. Considering SASC Relationship Satisfaction, post hoc Tukey HSD tests indicated that Cluster 1 differed significantly from the other 3 clusters, Cluster 2 differed from Cluster 3 (and 1) but not Cluster 4, and that Cluster 3 differed from Cluster 4 (and 1 and 2). All significant differences had  $p$ -values  $< .01$ . Considering SASC Social Support, Clusters 1, 2, and 4 differed significantly ( $p < .005$ ) only from Cluster 3, but not from each other in terms of Social Support.

## **Additional Findings**

### **Independent Samples *t*-test: RDAS Original Norm Scores vs. Present Sample**

A single-sample *t*-test was conducted to compare the RDAS scores of the present sample ( $M = 51$ ,  $SD = 7$ ) with the norm of the heterosexual sample ( $M = 48$ ). The *t*-value was significant,  $t(269) = 60.3$ ,  $p < .001$ .

**Table 4.1***Correlation Matrix of SASC by RDAS (N=251)*

|                                      | SASC<br>Relationship<br>Satisfaction | SASC<br>Support | SASC Total    | RDAS<br>Satisfaction | RDAS<br>Cohesion | RDAS<br>Consensus | RDAS Total |
|--------------------------------------|--------------------------------------|-----------------|---------------|----------------------|------------------|-------------------|------------|
| SASC<br>Relationship<br>Satisfaction | --                                   |                 |               |                      |                  |                   |            |
| SASC<br>Support                      | <b>.243**</b>                        | --              |               |                      |                  |                   |            |
| SASC<br>Total                        | <b>.903**</b>                        | <b>.636**</b>   | --            |                      |                  |                   |            |
| RDAS<br>Satisfaction                 | <b>.676**</b>                        | <b>.191**</b>   | <b>.622**</b> | --                   |                  |                   |            |
| RDAS<br>Cohesion                     | <b>.510**</b>                        | <b>.147*</b>    | <b>.471**</b> | <b>.431**</b>        | --               |                   |            |
| RDAS<br>Consensus                    | <b>.636**</b>                        | <b>.248**</b>   | <b>.616**</b> | <b>.505**</b>        | <b>.385**</b>    | --                |            |
| RDAS Total                           | <b>.763**</b>                        | <b>.249**</b>   | <b>.718**</b> | <b>.787**</b>        | <b>.769**</b>    | <b>.816**</b>     | --         |

\* *Correlation significant at the .05 level*\*\* *Correlation Significant at the .01 level.*

**Table 4.2***Correlation Matrix of SASC by OQ 45.2 (N=270)*

|                                      | SASC<br>Relationship<br>Satisfaction | SASC<br>Support | SASC Total     | OQ Symptom<br>Distress | OQ<br>Interpersonal<br>Relations | OQ Social<br>Role | OQ Total |
|--------------------------------------|--------------------------------------|-----------------|----------------|------------------------|----------------------------------|-------------------|----------|
| SASC<br>Relationship<br>Satisfaction | --                                   |                 |                |                        |                                  |                   |          |
| SASC<br>Support                      | <b>.226**</b>                        | --              |                |                        |                                  |                   |          |
| SASC Total                           | <b>.901**</b>                        | <b>.626**</b>   | --             |                        |                                  |                   |          |
| OQ Symptom<br>Distress               | <b>-.361**</b>                       | <b>-.290**</b>  | <b>-.419**</b> | --                     |                                  |                   |          |
| OQ<br>Interpersonal<br>Relations     | <b>-.626**</b>                       | <b>-.267**</b>  | <b>-.620**</b> | <b>.693**</b>          | --                               |                   |          |
| OQ Social<br>Role                    | <b>-.361**</b>                       | <b>-.268**</b>  | <b>-.372**</b> | <b>.733**</b>          | <b>.576**</b>                    | --                |          |
| OQ Total                             | <b>-.457**</b>                       | <b>-.310**</b>  | <b>-.504**</b> | <b>.969**</b>          | <b>.819**</b>                    | <b>.821**</b>     | --       |

**\*\* Correlation Significant at the .01 level.**

**Table 4.3***Fisher's z-Test of Correlations*

| SASC<br>Relationship<br>Satisfaction | N   | SASC<br>Social<br>Support | N   | Correlated<br>With | Fisher's $z$ |
|--------------------------------------|-----|---------------------------|-----|--------------------|--------------|
| -.621                                | 279 | -.262                     | 270 | oq-ir              | -5.3693      |
| -.315                                | 282 | -.263                     | 282 | oq-sr              | -.6740       |
| -.335                                | 282 | -.289                     | 282 | oq-sd              | -.6053       |



**Table 4.4***Item Level Parameter Estimates and Diagnostic Statistics – SASC FI – Relationship Satisfaction*

| Item | A    | c <sub>1</sub> | c <sub>2</sub> | c <sub>3</sub> | c <sub>4</sub> | c <sub>5</sub> | c <sub>6</sub> | $\chi^2$ | Probability |
|------|------|----------------|----------------|----------------|----------------|----------------|----------------|----------|-------------|
| 1    | 1.08 | 2.88           | 1.03           | -1.09          | -1.61          | -2.16          | -3.52          | 108.74   | .2151       |
| 2    | 1.10 | 3.69           | 1.98           | .70            | -.09           | -.73           | -2.49          | 152.34   | .0156       |
| 3    | 2.02 | 6.97           | 5.95           | 4.51           | 3.23           | .144           | --             | 60.39    | .0409       |
| 4    | 1.60 | 5.87           | 4.34           | 3.67           | 3.33           | 1.87           | -.44           | 55.51    | .7074       |
| 5    | .80  | 4.58           | 3.11           | 1.89           | 1.26           | .15            | -1.37          | 134.87   | .0067       |
| 6    | 1.29 | 4.94           | 3.07           | 2.39           | 1.63           | .76            | -1.21          | 102.40   | .0631       |
| 7    | 1.72 | 5.23           | 3.80           | 2.73           | 2.04           | .48            | -1.04          | 85.39    | .3472       |
| 8    | 1.19 | 4.26           | 3.02           | 1.89           | 1.25           | .51            | -.89           | 105.18   | .2228       |
| 9    | .80  | 4.17           | 2.51           | 1.13           | .78            | .18            | -1.30          | 118.87   | .1849       |
| 10   | .76  | 4.00           | 2.54           | 1.14           | .55            | -.29           | -1.96          | 134.14   | .0586       |
| 11   | 1.69 | 7.07           | 5.89           | 4.00           | 2.98           | 1.52           | -1.21          | 92.48    | .0174       |
| 12   | .98  | 4.52           | 3.33           | 2.55           | 2.05           | 1.23           | -.21           | 94.94    | .0930       |
| 13   | 1.54 | 6.86           | 5.19           | 4.66           | 3.90           | 2.87           | 1.50           | 46.40    | .3334       |
| 14   | 1.16 | 4.92           | 2.79           | 1.82           | 1.16           | .39            | -.59           | 119.22   | .0921       |
| 15   | .78  | 3.33           | 2.22           | 1.09           | .44            | -.29           | -1.74          | 161.31   | .0099       |
| 16   | .89  | 2.99           | 2.06           | .67            | .22            | -.21           | -.160          | 128.99   | .1041       |

**Table 4.5***Item Level Parameter Estimates and Diagnostic Statistics – SAS F2 – Support*

| Item | A    | c <sub>1</sub> | c <sub>2</sub> | c <sub>3</sub> | c <sub>4</sub> | c <sub>5</sub> | c <sub>6</sub> | $\chi^2$ | Probability |
|------|------|----------------|----------------|----------------|----------------|----------------|----------------|----------|-------------|
| 17   | 2.76 | 5.49           | 4.03           | 3.16           | 2.60           | 1.60           | -.49           | 86.75    | .0207       |
| 18   | 1.04 | 2.91           | 2.50           | 1.81           | 1.20           | .45            | -.69           | 115.70   | .0084**     |
| 19   | 2.82 | 4.96           | 3.81           | 3.11           | 1.43           | .85            | -1.10          | 87.38    | .0780       |
| 20   | 1.18 | 2.95           | 2.27           | 1.81           | .67            | .09            | -1.21          | 141.46   | .0001**     |
| 21   | 1.24 | 5.67           | 4.93           | 4.50           | 3.74           | 2.88           | .74            | 45.56    | .1861       |
| 22   | 1.28 | 6.36           | 5.62           | 4.66           | 3.47           | 2.26           | .36            | 55.55    | .1578       |
| 23   | .69  | 4.06           | 3.53           | 2.85           | 1.87           | 1.28           | .01            | 82.23    | .0855       |
| 23   | .94  | 4.65           | 3.19           | 2.88           | 2.55           | 1.96           | .47            | 64.42    | .1154       |

\*\* $\chi^2$  significant at  $p > .01$

**Table 4.6***Final Cluster Characteristics*

| Measure (cutoff)                         | Final Cluster Centroids |     |    |    | ANOVA     |          |          |
|--|-------------------------|-----|----|----|-----------|----------|----------|
|  | 1                       | 2   | 3  | 4  | <i>df</i> | <i>F</i> | <i>p</i> |
| RDAS ( $\leq 48$ )                       | 58                      | 50  | 42 | 53 | 3, 266    | 54.8     | .001     |
| OQ Symptom Distress ( $\geq 36$ )        | 12                      | 24  | 55 | 40 | 3, 266    | 349.9    | .001     |
| OQ Interpersonal Relations ( $\geq 15$ ) | 5                       | 11  | 21 | 12 | 3, 266    | 93.6     | .001     |
| OQ Social Role ( $\geq 12$ )             | 4                       | 8   | 15 | 12 | 3, 266    | 97.6     | .001     |
| Number of Cases                          | 50                      | 156 | 33 | 56 |           |          |          |

*N* = 295

**Table 4.7***Results of MANOVA with SASC Subscales as Dependent Variables.*

| Effect                              | Wilks<br>$\lambda$ | $F$  | $df$ | $p$  | Partial<br>$\eta^2$ | Observed<br>Power |
|-------------------------------------|--------------------|------|------|------|---------------------|-------------------|
| Cluster Membership Category         | .791               | 7.01 | 6    | .000 | .11                 | 1.00              |
| Gender                              | .988               | 1.04 | 2    | .354 | .01                 | .23               |
| Age Category                        | .925               | 1.67 | 8    | .105 | .04                 | .73               |
| Months Out Category                 | .947               | 1.55 | 6    | .160 | .03                 | .60               |
| Cluster * Gender                    | .978               | .64  | 6    | .699 | .01                 | .25               |
| Cluster * Age                       | .815               | 1.65 | 22   | .034 | .10                 | .97               |
| Cluster * Months Out                | .914               | .97  | 16   | .490 | .04                 | .66               |
| Gender * Age                        | .944               | 1.24 | 8    | .275 | .03                 | .57               |
| Gender * Months Out                 | .978               | .63  | 6    | .704 | .01                 | .25               |
| Age * Months Out                    | .924               | .69  | 20   | .840 | .04                 | .54               |
| Cluster * Gender * Age              | .945               | 1.22 | 8    | .289 | .03                 | .56               |
| Cluster * Gender * Months Out       | .971               | .82  | 6    | .552 | .01                 | .33               |
| Cluster * Age * Months Out          | .929               | 1.06 | 12   | .393 | .04                 | .62               |
| Gender * Age * Months Out           | .951               | .721 | 12   | .731 | .03                 | .42               |
| Cluster * Gender * Age * Months Out | .990               | .406 | 4    | .804 | .01                 | .14               |
| Error                               |                    |      | 291  |      |                     |                   |

**Table 4.8***Results of Univariate ANOVAs with SASC Subscales as Dependent Variables.*

| Source                      | Dependent Variable        | <i>df</i> | <i>F</i> | <i>p</i> | Partial $\eta^2$ | Observed Power |
|-----------------------------|---------------------------|-----------|----------|----------|------------------|----------------|
| Cluster Membership Category | Relationship Satisfaction | 3         | 10.80    | .000     | .160             | .999           |
|                             | Social Support            | 3         | 5.31     | .002     | .086             | .927           |
| Gender                      | Relationship Satisfaction | 1         | .76      | .186     | .010             | .261           |
|                             | Social Support            | 1         | .58      | .447     | .003             | .118           |
| Age                         | Relationship Satisfaction | 4         | 1.21     | .331     | .028             | .372           |
|                             | Social Support            | 4         | 2.07     | .087     | .046             | .609           |
| Months Out                  | Relationship Satisfaction | 3         | 1.49     | .219     | .026             | .389           |
|                             | Social Support            | 3         | 1.53     | .209     | .026             | .399           |
| Cluster * Gender            | Relationship Satisfaction | 3         | .36      | .784     | .006             | .119           |
|                             | Social Support            | 3         | .96      | .412     | .017             | .260           |
| Cluster * Age               | Relationship Satisfaction | 11        | 1.18     | .307     | .071             | .629           |
|                             | Social Support            | 11        | 2.09     | .024     | .119             | .908           |
| Cluster * Months Out        | Relationship Satisfaction | 8         | .72      | .672     | .033             | .328           |
|                             | Social Support            | 8         | 1.35     | .223     | .060             | .604           |

Table 4.3 (cont'd)

| Source                        | Dependent Variable        | <i>df</i> | <i>F</i> | <i>p</i> | Partial $\eta^2$ | Observed Power |
|-------------------------------|---------------------------|-----------|----------|----------|------------------|----------------|
| Gender * Age                  | Relationship Satisfaction | 4         | 1.19     | .318     | .027             | .368           |
|                               | Social Support            | 4         | 1.18     | .323     | .027             | .364           |
| Gender * Months Out           | Relationship Satisfaction | 3         | .27      | .850     | .005             | .100           |
|                               | Social Support            | 3         | 1.05     | .374     | .018             | .280           |
| Age * Months Out              | Relationship Satisfaction | 10        | .57      | .838     | .032             | .289           |
|                               | Social Support            | 10        | .81      | .621     | .045             | .416           |
| Cluster * Gender * Age        | Relationship Satisfaction | 4         | 1.56     | .187     | .035             | .476           |
|                               | Social Support            | 4         | .83      | .511     | .019             | .260           |
| Cluster * Age * Months Out    | Relationship Satisfaction | 3         | .93      | .426     | .016             | .253           |
|                               | Social Support            | 3         | .95      | .416     | .017             | .258           |
| Cluster * Gender * Months Out | Relationship Satisfaction | 6         | 1.38     | .223     | .047             | .531           |
|                               | Social Support            | 6         | .81      | .563     | .028             | .316           |
| Gender * Age * Months Out     | Relationship Satisfaction | 6         | .27      | .949     | .010             | .123           |
|                               | Social Support            | 6         | 1.2      | .309     | .041             | .464           |

Table 4.3 (cont'd)

| Source                                    | Dependent Variable        | <i>df</i> | <i>F</i> | <i>p</i> | Partial $\eta^2$ | Observed Power |
|---|---------------------------|-----------|----------|----------|------------------|----------------|
| Cluster * Gender<br>* Age *<br>Months Out | Relationship Satisfaction | 2         | .15      | .864     | .002             | .072           |
|   | Social Support            | 2         | .59      | .558     | .007             | .146           |
| Error                                     |                           | 170       |          |          |                  |                |

**Figure 4.1**

*Item Information Curves – SASC F1 – Relationship Satisfaction*

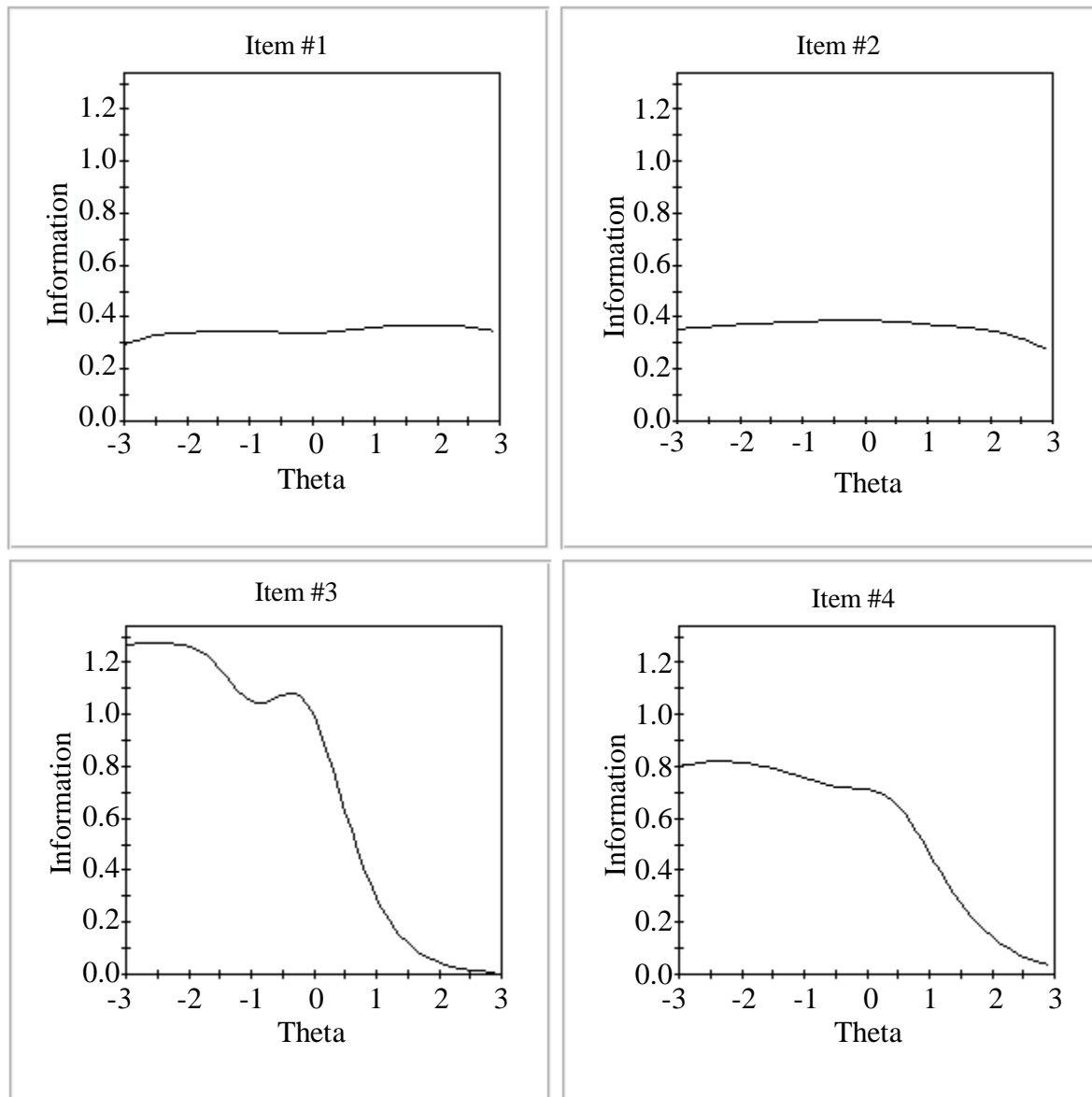




Figure 4.1 (cont'd)

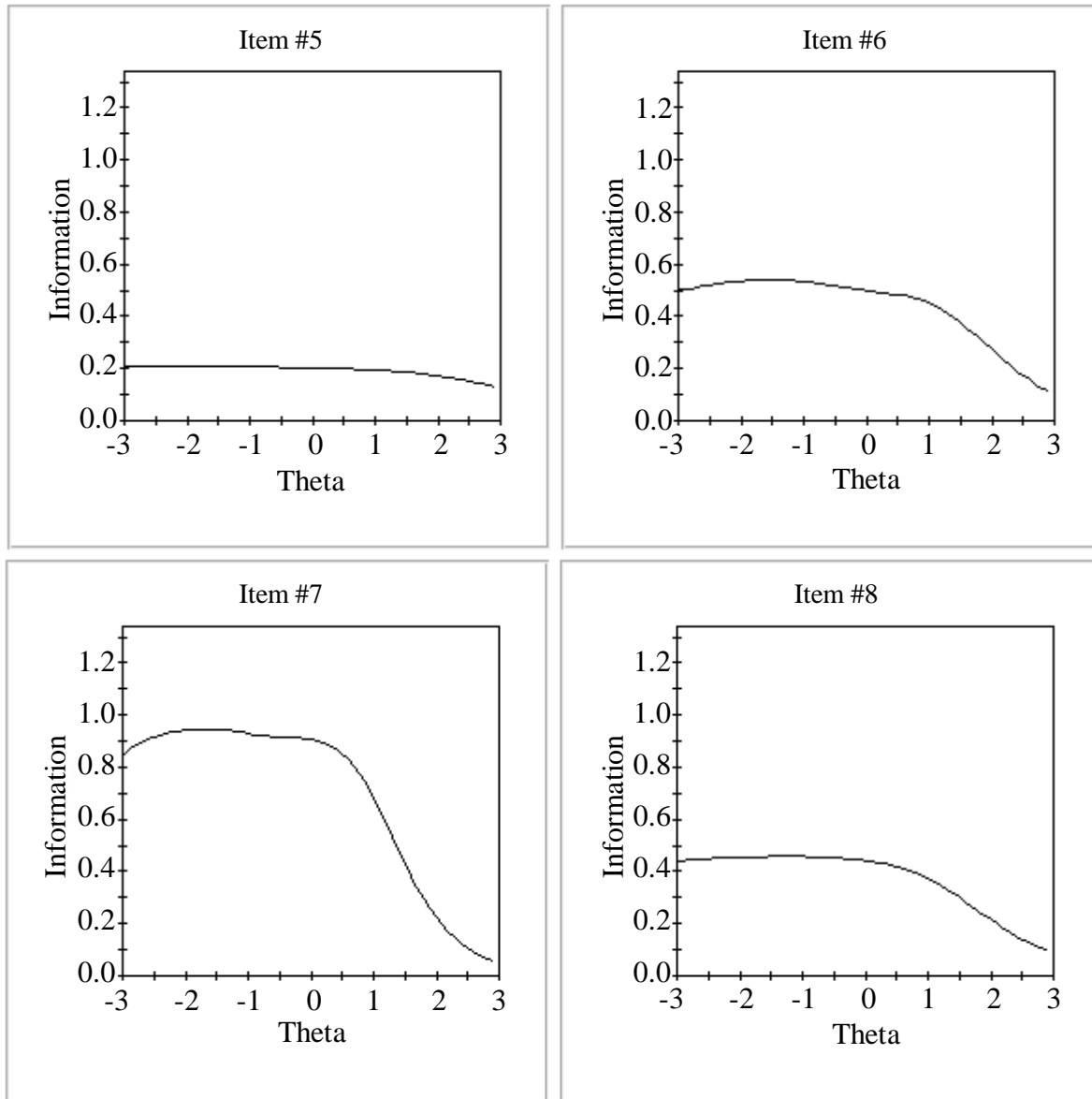


Figure 4.1 (cont'd)

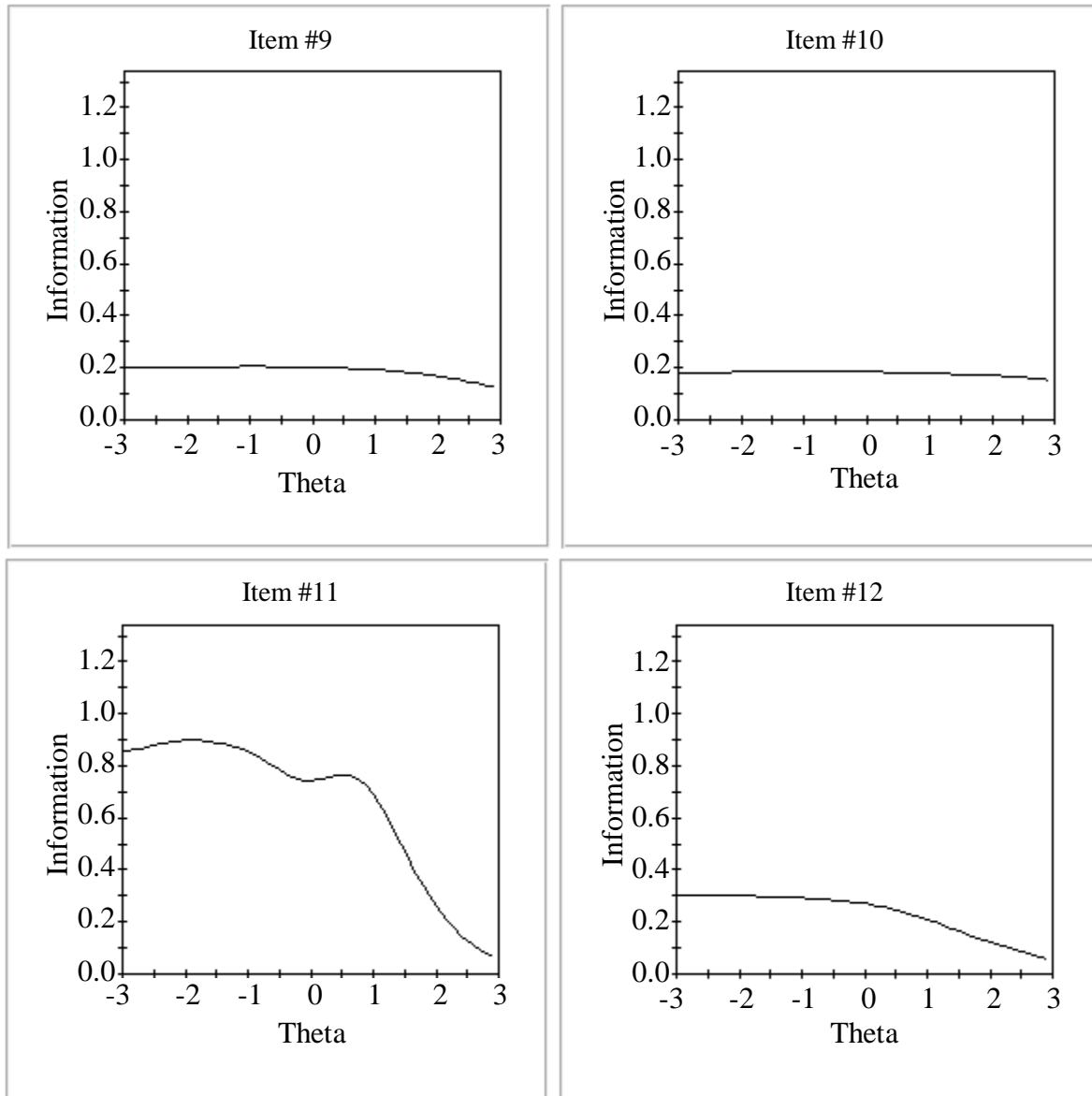
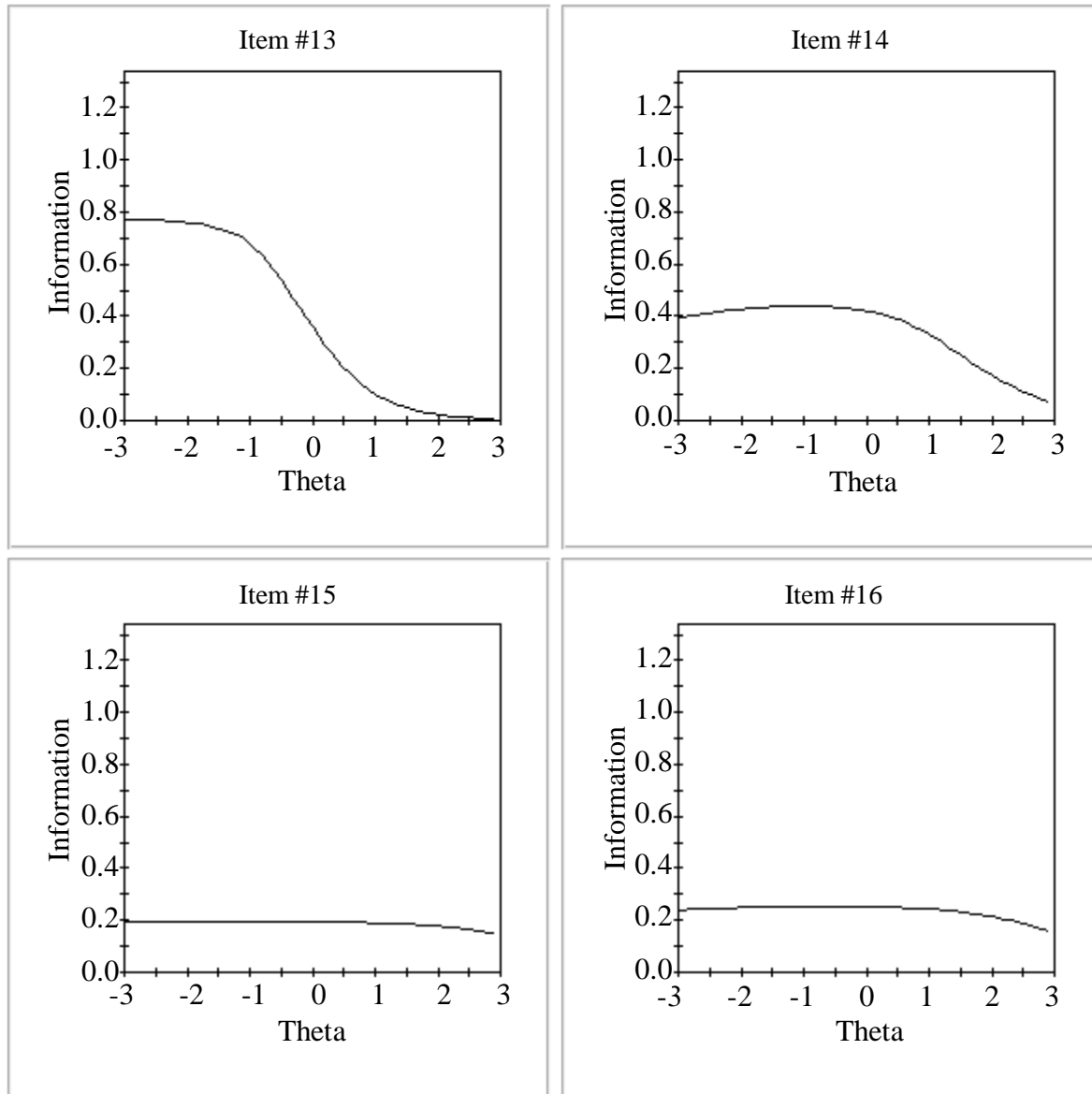
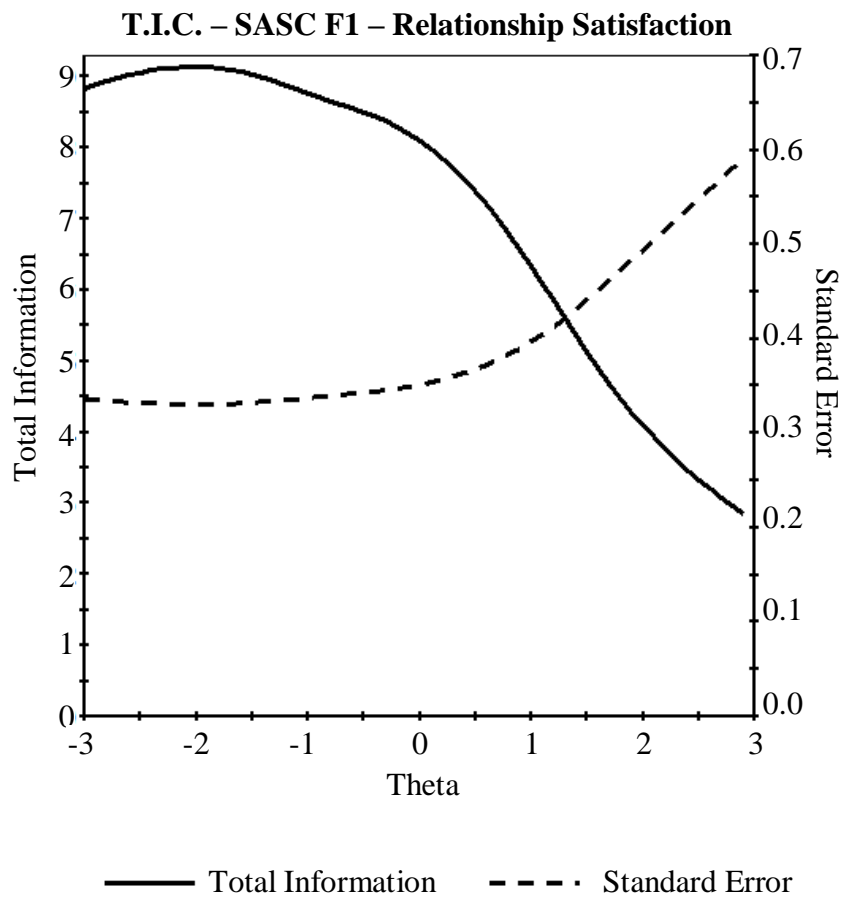


Figure 4.1 (cont'd)



**Figure 4.2**

*Total Information Curve – SASC F1 – Relationship Satisfaction*



**Figure 4.3**

*Trace Lines – SASC F1 – Relationship Satisfaction*

NOTE: For interpretation of the references to color in this and all other figures, the reader is referred to the electronic version of this dissertation.

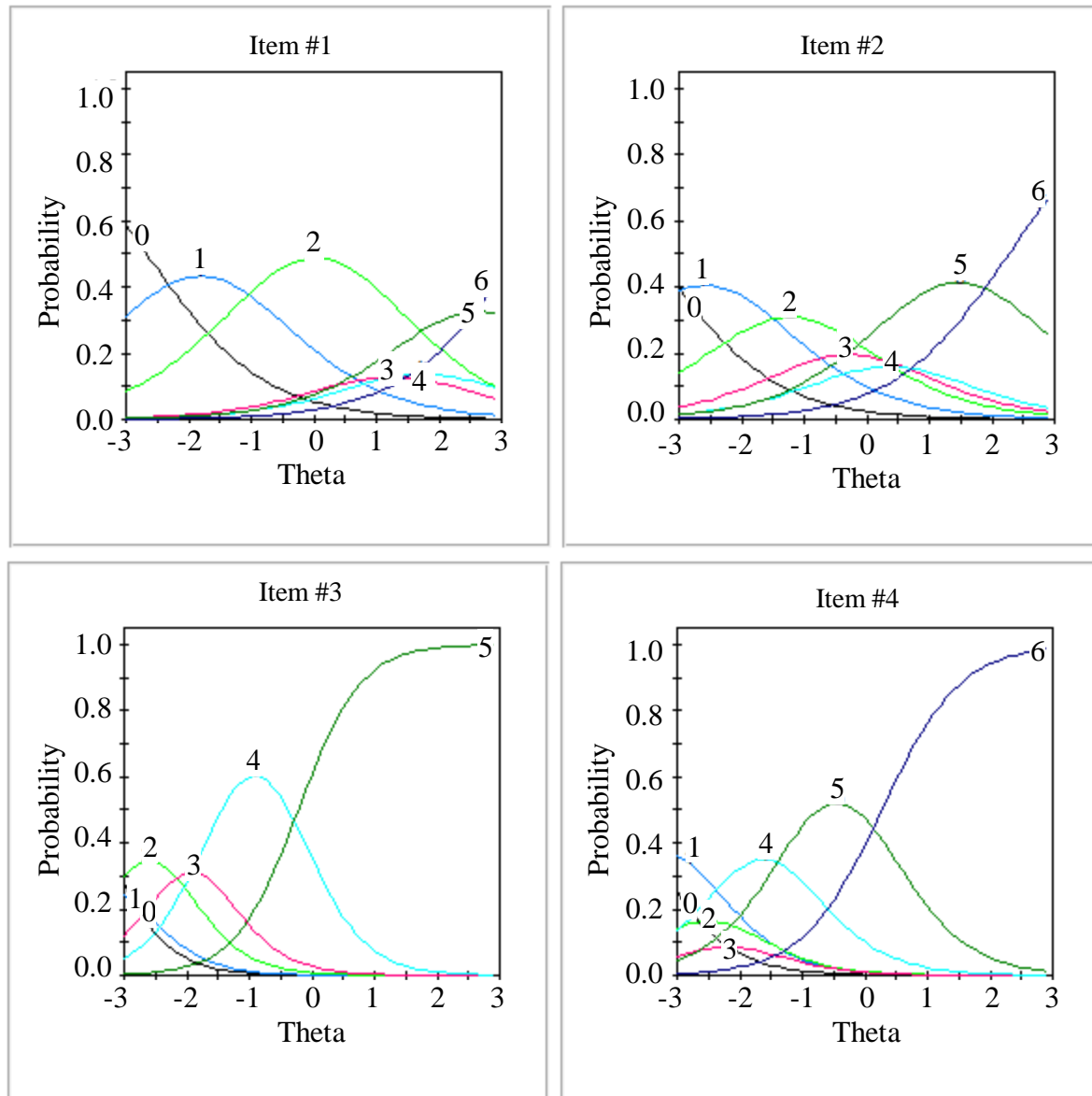


Figure 4.3 (cont'd)

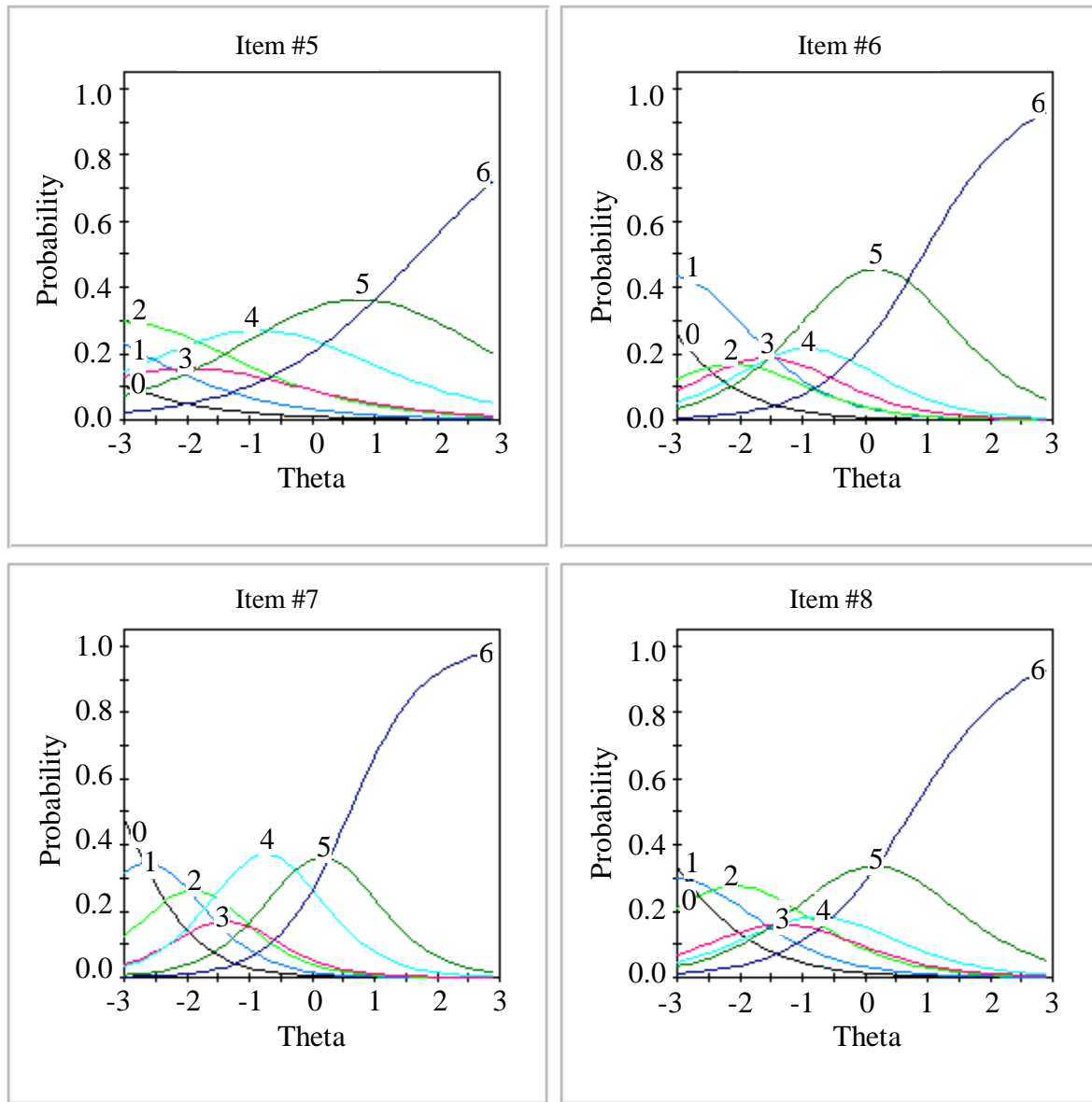


Figure 4.3 (cont'd)

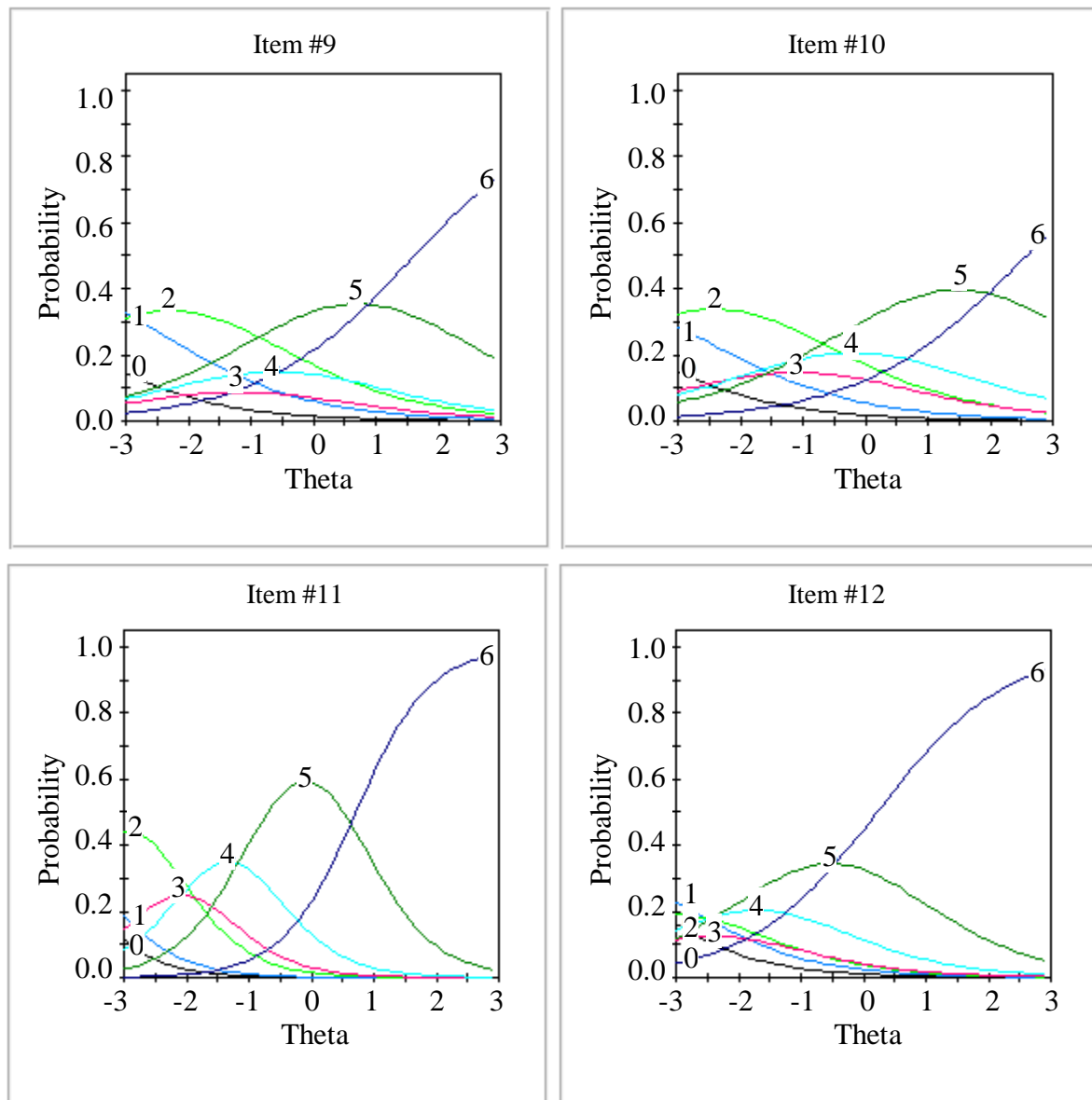
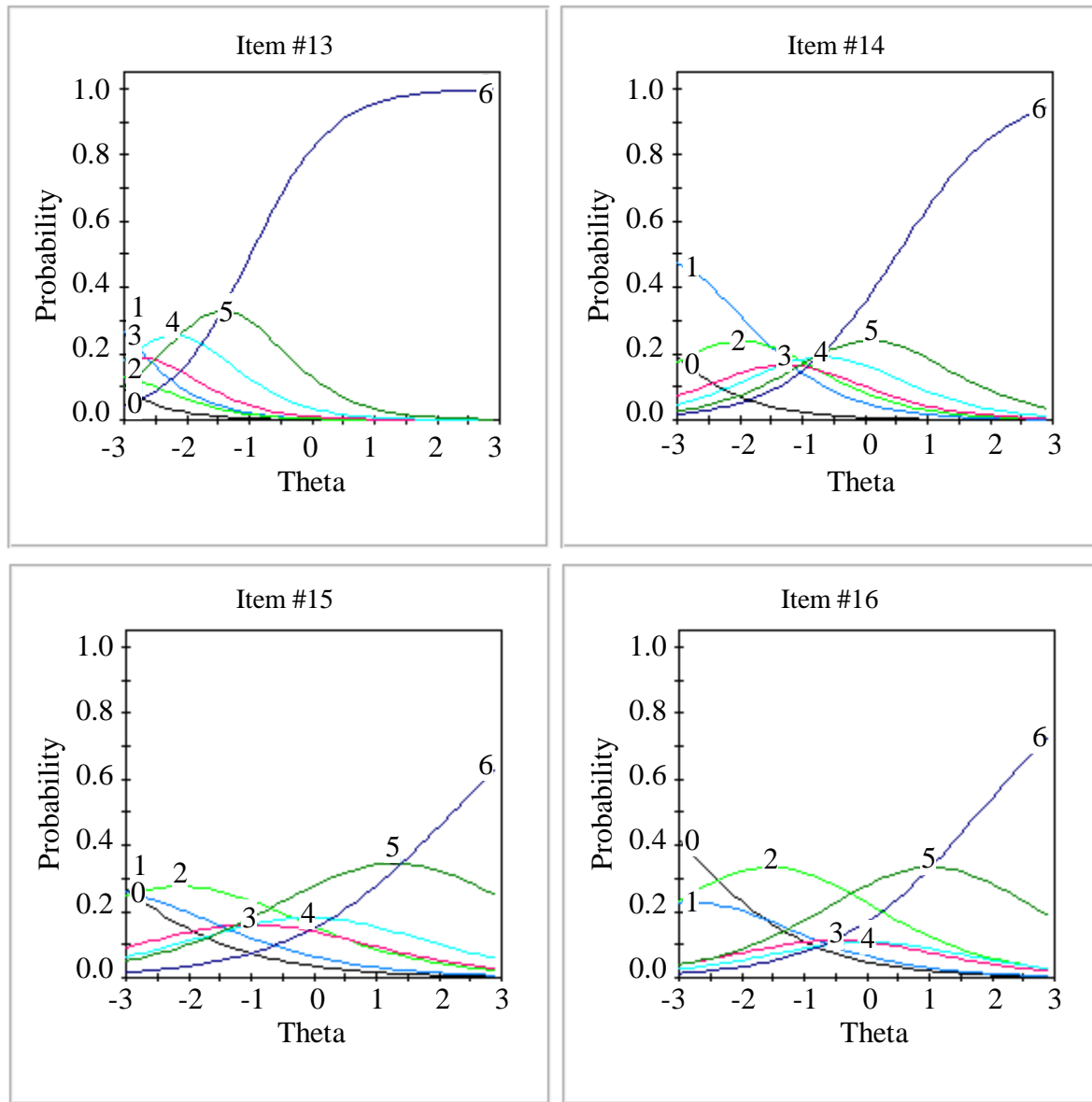


Figure 4.3 (cont'd)





**Figure 4.4**

*Item Information Curves – SASC F2 – Social Support*

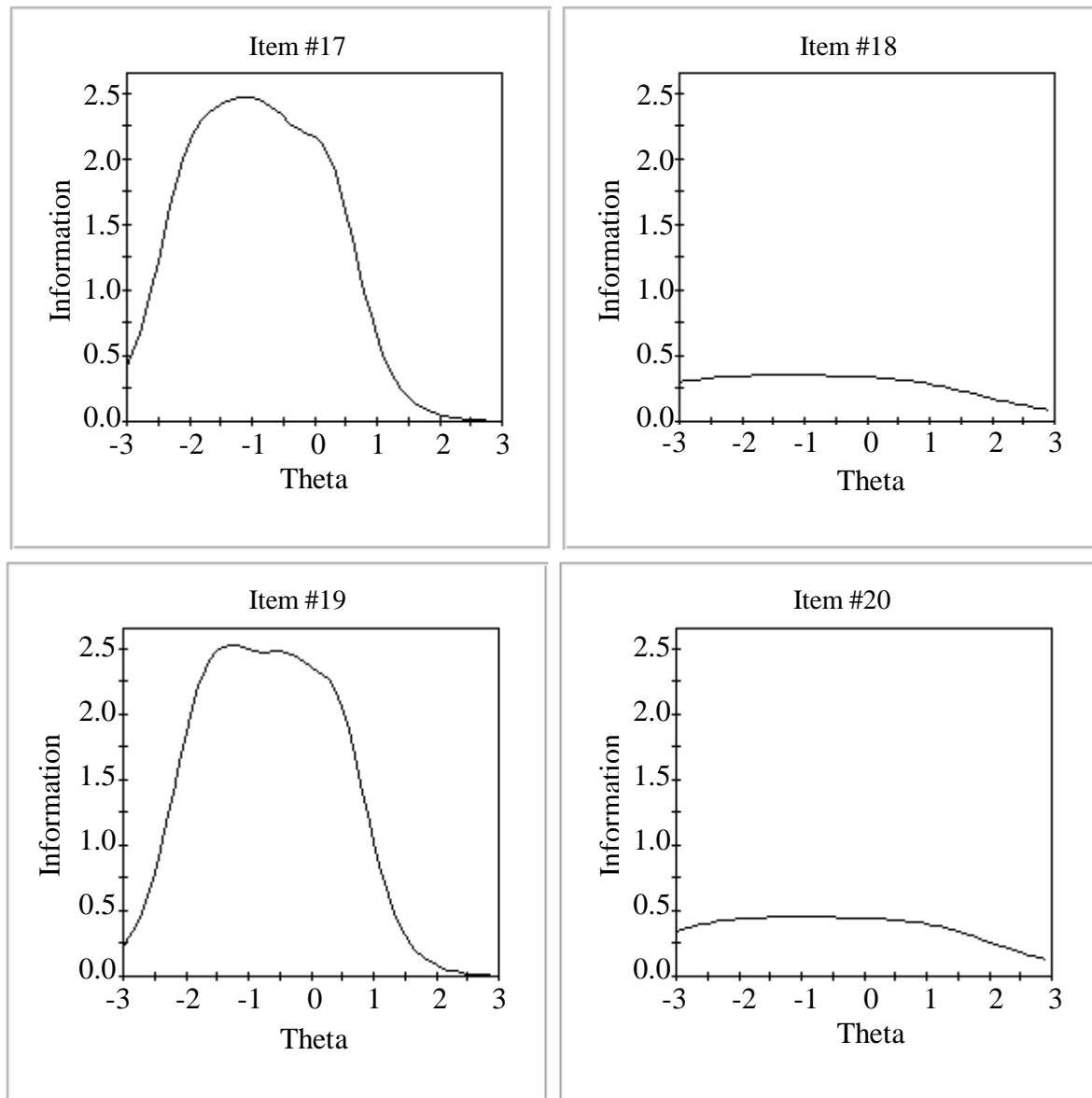
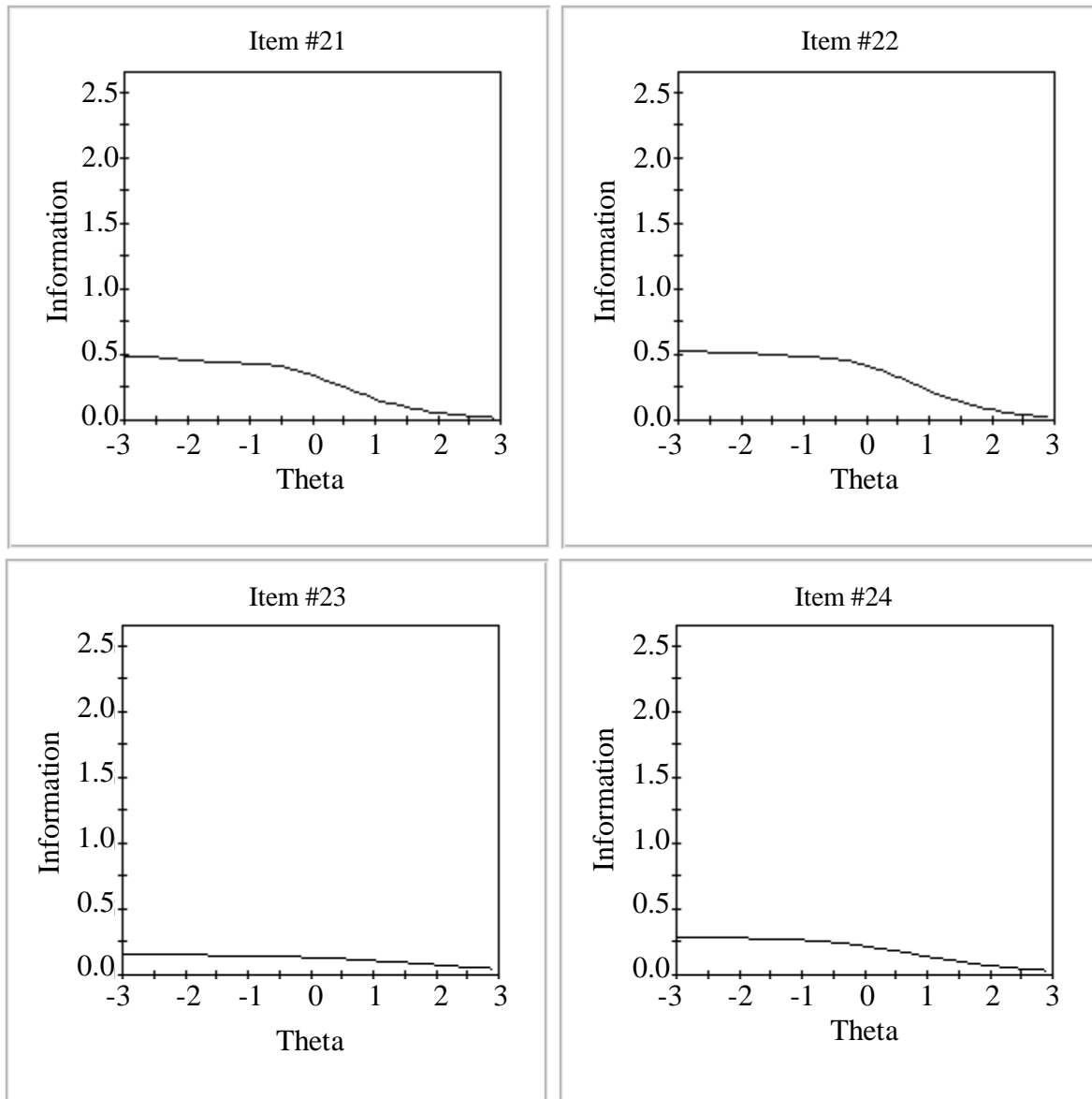
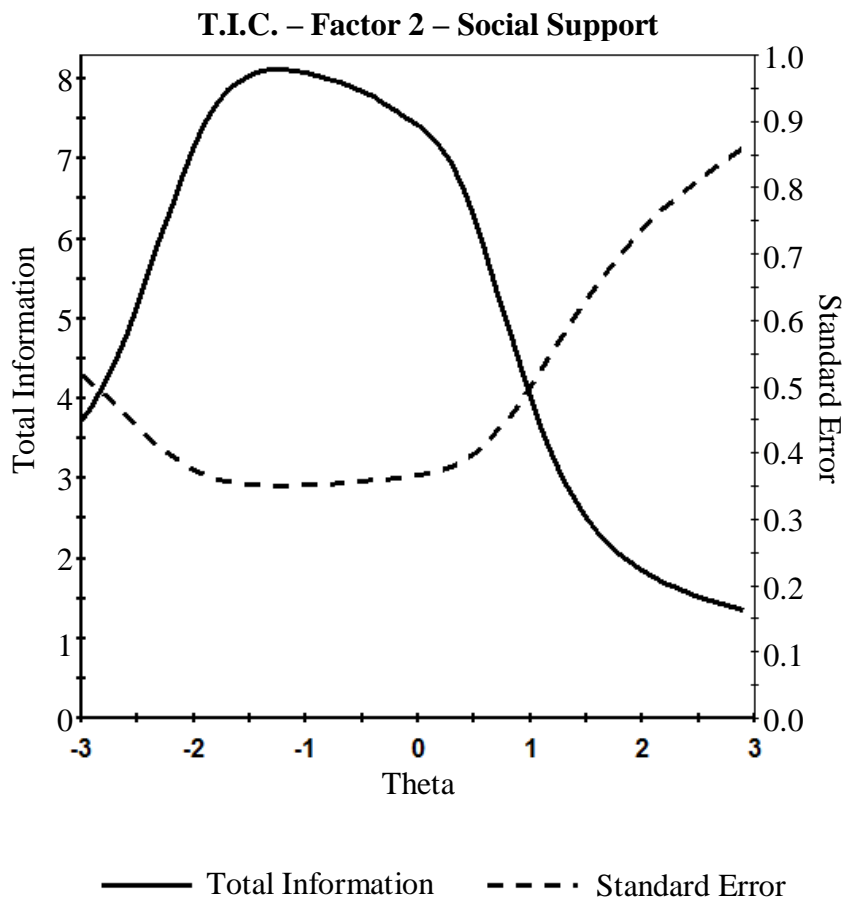


Figure 4.4 (cont'd)



**Figure 4.5**

*Total Information Curve, Overall Scale, Factor 2 – Social Support*



**Figure 4.6**

*Trace Lines – SASC F2 – Support*

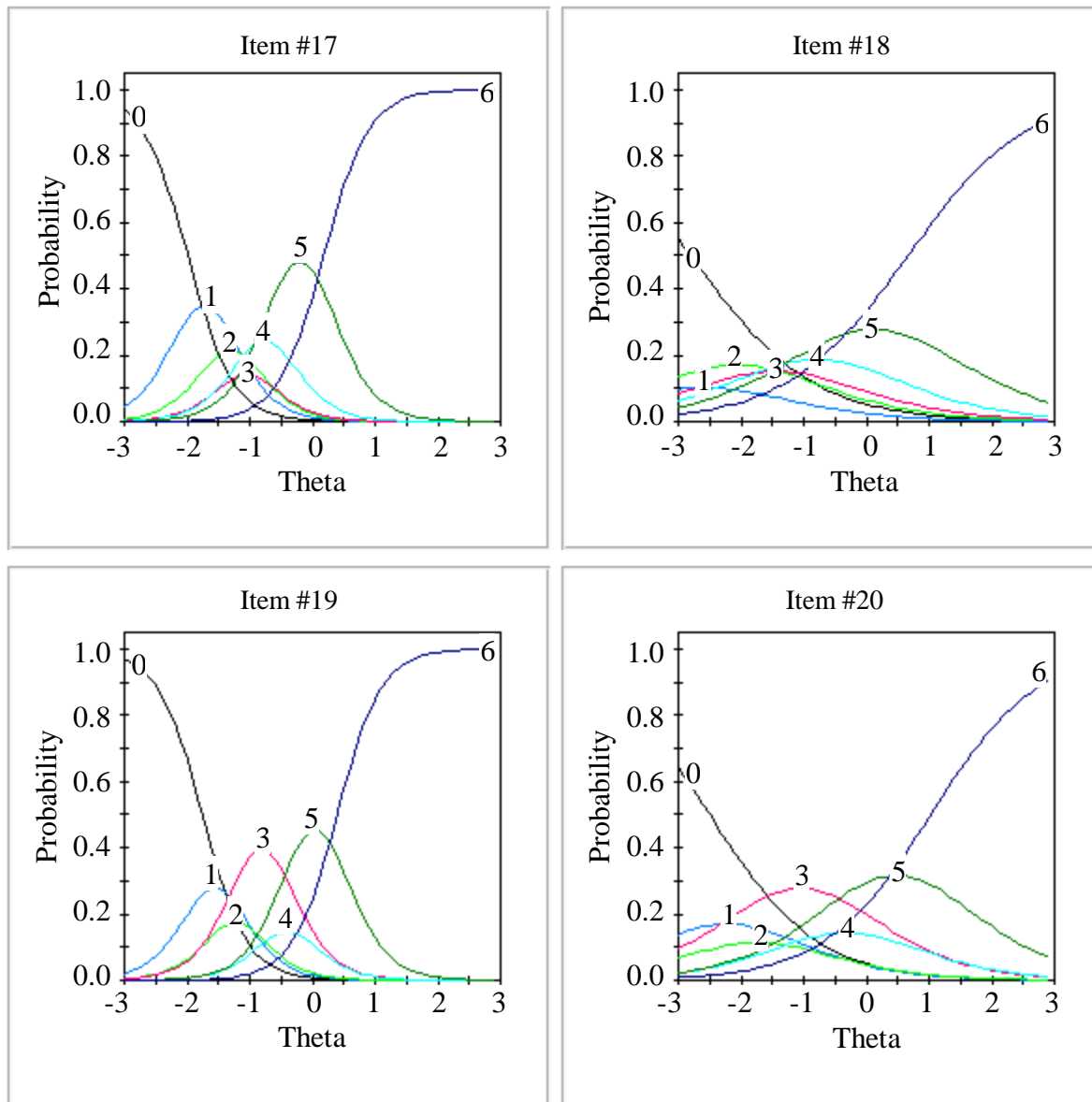
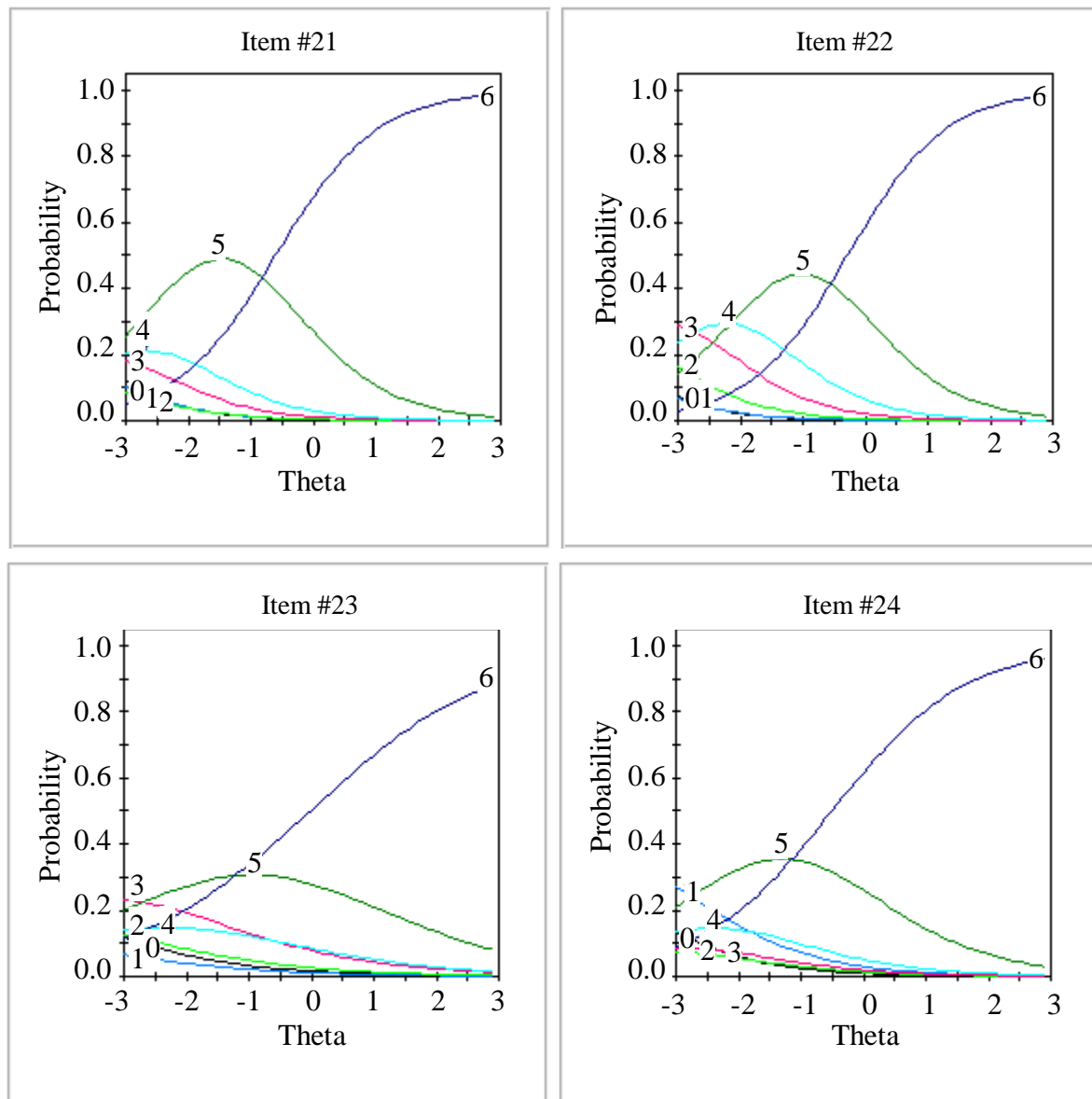


Figure 4.6 (cont'd)



## **CHAPTER V**

### **DISCUSSION**

The research literature on LG couples includes studies related to same-gender couple work distribution (e.g., Kurdek, 2005), conflict (e.g., Kurdek, 2004b; 2005; Gottman et al., 2003), and dissolution (e.g., Carpenter, & Gates, 2008, Porche, & Purvin, 2008) , along with a limited number of relationship satisfaction studies (e.g., Balsam, Beauchaine, Rothblum, & Solomon, 2008; Bulstein, & Schwartz, 1983; MacIntosh, Reissing, & Andruff, 2010). The satisfaction studies do not utilize a measure that was developed with LG couples, nor is there information specifically related to the stressors of being in an LG relationship. Studies on relationship satisfaction typically use a comparison group of heterosexual couples, as well as using typical relationship measures, such as the RDAS, developed for use with heterosexual couples. Only one study recruited an all gay sample in the development phase, and that was Burgoyne's study of his RAM-SSC (2001). However, the RAM-SSC was based on the adaptation of a heterosexual couple assessment. To make Burgoyne's approach more useful and accessible, a sort of the 90 items by undergraduates was used to identify 19 potential items for a briefer scale. Four of these items were eliminated later because they actually decreased the reliability of the Relationship Satisfaction subscale. Eleven items were added to address social support issues that the research literature had identified as important relationship supports. However, 4 of those items were eliminated later because of threats to reliability of the Social Support subscale. The study combined a Classical Test Theory (Novick, 1966) analysis with an Item Response Model (Lord, 1980) to determine how effective the SASC is at measuring relationship satisfaction and social support for same-gender couples.

LG individuals have been historically difficult to recruit for research (Meyer & Wilson, 2009). Using an online data collection method has been shown to be effective for recruiting larger sample sizes and including a more diverse sample population (Riggle, Rostosky, & Reedy, 2005). The downside of conducting research online is the exclusion of those without internet access and those who cannot read the English language or type on a computer. Also, conducting qualitative research online means that the ability is lost to debrief participants and ask questions post hoc. In such online research, there is always the possibility that some participants are falsifying their answers and/or identity. With the population recruited for this sample, some of these issues are minor because of the length of the survey. Multiple responses were discouraged by the placement of a “cookie” in the browser history of respondents by SurveyMonkey. This “cookie” stopped the same computer from being used to complete the survey multiple times.

The benefits of such an online study outweighed the possible negatives. For the present research, these benefits include having access to a wider geographic audience, presenting each instrument in a randomly-determined order, and obtaining a larger number of respondents in a shorter period of time. For future research, the qualitative data is readily available for analysis. For the participant, benefits include having increased security, completing the research at will, and the greater likelihood of anonymity. Furthermore, completing online research takes much less effort for the participant than traditional in-person or mail-in research. The response rate increases and drop-outs decline (Kraut et al., 2004; Suarez-Balcazar, Balcazar, & Taylor-Ritzler, 2009).

The sample used in this study comes from a wide geographic area. As noted in Chapter III, the overall sample had 55.3% of participants from non-Midwest locations (i.e., away from the origin of the research). Traditional studies, such as those conducted in person or even via

mailed survey/telephone have a difficult time obtaining such a geographically diverse sample. There is value in having a diverse sample, especially as it relates to the ability to generalize from the results. The sample in this study is diverse in terms of location, age, and months “out” with no particular group of individuals dominating the data set. A limitation of the sample is the predominance of non-Hispanic whites and participants who identified as gay male or lesbian female. Analysis of variance procedures were limited to these participants. Missing data was handled through a pairwise deletion method, instead of a multiple imputation method (Graham & Hofer, 2000). This procedure was chosen in an effort to have only data based on actual participant responses.

The distribution of demographic data is actually quite similar to recent estimates released by the Williams Foundation (Gates, 2011), considered the authority on demographic research for LG populations. It was also important to have a larger sample in order to get a wider range of responses, particularly related to life experience and perspectives. There was a concern that the demographic variables of age, months “out,” and gender would have an influence on the outcome of the study. The outcome of relationship satisfaction or distress did not differ by any of these variables, as shown by the MANOVA (Hypothesis 5).

With such a diverse sample, a *k*-means cluster analysis was conducted with data from the OQ, RDAS, and SASC scores (Everitt, Landau, Leese, & Stahl, 2011). Four clusters were identified, each with characteristics related to their psychological functioning and level of relationship satisfaction. Group 1 had the highest mean score on relationship satisfaction, with the lowest levels of interpersonal distress (17% of total sample). Group 2 had lower, but above average, relationship satisfaction and somewhat elevated mean levels of psychological and interpersonal distress still below cutoff scores for the OQ subscales (60% of total sample). Group



3 had the lowest mean scores on relationship satisfaction and the highest levels of distress across the three OQ subscales (13% of total sample). Group 4 had high mean scores on relationship satisfaction, but elevated levels of symptom distress (SD) and social role (SR) scores (22% of total sample). This is helpful in the interpretation of the data in terms of the types of persons filling out the survey, at least in terms of who they are intrapsychically and relationally. The finding that approximately 35% of the sample (Groups 3 and 4) were struggling with psychological issues does support minority stress theory which argues that LG individuals would be expected to have higher rates of distress in their lives (Meyer, 1995; 2003). The fact that Groups 1 and 2 make up approximately 65% of the sample is encouraging in the sense that they have been able to build satisfying relationships and manage more of the stresses of being a minority in society. The cluster analysis opens the door to future qualitative research on how the different groups describe their relationship.

### **The Measure**

#### **Classical Test Theory Analysis**

Initially, Classical Test Theory was used as an approach to data reduction and to test the evidence for validity and reliability of the SASC. That the SASC is a valid and reliable instrument for determining same-gender couple satisfaction was supported by the CTT analyses. Six items were removed from the original measure as part of the validation and development process. It is worth noting that the items themselves seemed to be theoretically sound for inclusion on the assessment; however, statistically they were not appropriate.

*“Sometimes, one of us gets mad and gives the other the silent treatment,”* was an item included from the RAM-SSC which had a high level of agreement among the undergraduate sorters. However, in the IRM analyses, it did not have an effect on the information provided by

the instrument. Further, it had a negative effect on the reliability of the Relationship Satisfaction subscale.

*“Our sexual relationship influences our level of closeness”* and *“Our sexual relationship decreases my frustration with other parts of our relationship”* were included from the RAM-SSC because the raters agreed they belonged in the category of Sexuality, Affection, Expressiveness, and Compatibility. Research shows that sexuality in a relationship is an important predictor of overall satisfaction. However, the two items decreased the overall reliability, as well as loading across both the Relationship Satisfaction and Social Support factors. Therefore, they were removed to provide greater reliability and stability to the subscales.

Three other items, two of which were developed from the literature, *“Sometimes, I am afraid that people will see a part of me of which I am not aware”*, *“Being active in the gay community is important to me,”* and *“When I meet people, I hesitate to tell them about my sexual orientation/attraction”* seemed to be important, if not a subscale/factor unto themselves. However, none of these items proved to be helpful for the overall scale, and none loaded successfully onto a single factor or contributed to the overall reliability/validity of the instrument. They were deleted as well.

With the deletion of these items, the 24-item scale proved to have acceptable reliability, with evidence supporting its validity, and had a stable factor structure. These items were removed prior to the Item Response Modeling which evaluated item fit and trait characteristics. Classical Test Theory was used to identify the subscales and overall structure of the SASC. Item Response Modeling was used to determine the effectiveness of the SASC subscales at measuring the traits identified. In this process, two subscales were identified, labeled “Relationship Satisfaction” and “Social Support.”

## Item Response Modeling

**Relationship Satisfaction.** All items in the Relationship Satisfaction subscale have acceptable slope discriminants, indicating that they measure the underlying trait (theta). The item with the lowest discriminant slope, *“During our arguments, I never put down my partner’s point of view”* was still acceptable. This item also had the lowest factor loading for the Relationship Satisfaction subscale. Two items were identified as “misbehaving” in the chi-square tests. “Misbehaving” is a term used by IRT researchers to identify items that do not measure and provide information in the way expected. *“My partner and I share the same goals in life”* and *“I always seem to be in the mood for sex when my partner is.”* Both items were from the RAM-SSC, and were kept throughout the item reduction process in the Classical Test Theory analyses. They were retained because they fit the factor structure (CCT) and carried information about levels of theta (Relationship Satisfaction) in the IRM.

Examining all of the available IRM data, it is apparent that the Relationship Satisfaction subscale is better at distinguishing among unsatisfying relationships than among satisfying relationships. As an individual reports greater satisfaction, the measure becomes less sensitive in distinguishing the amount of the trait (Relationship Satisfaction) that an individual is experiencing. Several items are better at identifying unsatisfying relationships than others, for example, *“My mate has the qualities I want in a partner.”* This item has a high discriminant slope, appropriate levels of distinction between categories (information curve), and is “behaving” the way it should (chi-square test). Overall, the IRM analysis suggests that the Relationship Satisfaction subscale of the SASC is acceptable, in that it is able to distinguish among levels of the trait being measured.

**Social Support.** In the Social Support subscale, one item failed to achieve an acceptable slope discriminant (.69 vs .75, the lower accepted limit) suggesting that it was not measuring the latent trait of Social Support. *“I have told my coworkers about my sexual orientation/attraction,”* was added based on a literature review suggesting that being “out” in the workplace led to higher levels of personal satisfaction and increased productivity. As the IRM was not utilized as a data reduction technique, the item stayed in the final version of the SASC. However, it is an item that requires further analysis. All other items in the scale had satisfactory slope discriminants, indicating that they were in fact measuring the trait labeled “Social Support.” Two items had significant chi-square values, meaning they were not “behaving” the way they should, i.e, reflecting the trait, theta: *“My partner’s family accepts our relationship”* and *“My partner’s family would support our decision to adopt or have children.”* These items are theoretically related to social support, in terms acceptance of the relationship and whether the partner’s family would approve of the decision to have children (#18, #20), and so make sense. Both of these items carry limited information (Figure 4.4), but the “0” or “6” answer (“strongly disagree” and “strongly agree”) are effective in identify very low or higher levels of theta (Figure 4.6, #18, #20).

As was true of the Relationship Satisfaction subscale, the Social Support subscale is better at distinguishing among different levels of the lack of support than among high levels of social support. Further, it is evident from the information curves that the Social Support subscale is better at identifying higher levels of support than the Relationship Satisfaction subscale is at reporting higher levels of satisfaction (Figure 4.2). The Social Support subscale item information graphs also more distinct in describing a person’s level of support and the ability of the scale to

provide information on social support. With this subscale, as with the Relationship Satisfaction subscale, the IRT suggests that it is, in fact, measuring the latent trait of Social Support.

### **SASC as a Method of Determining Distress in Relationships**

The SASC was capable of distinguishing between distressed and non-distressed relationships, based on a comparison with the RDAS. A significant negative correlation was found between the total RDAS and total SASC ( $-.504$ ), indicating that they measure aspects of the same thing. When demographic variables were controlled in an ANCOVA, SASC scores were significantly different depending on whether the RDAS score was above or below the cutoff of 48. This test was conducted with the score on the full SASC scale (Relationship Satisfaction plus Social Support), but further specificity was needed to demonstrate that these subscales measure different constructs of relationship distress. A MANOVA was conducted with each of the SASC subscales compared on the RDAS categories of “distressed” vs. “non-distressed.” The results indicated that the Relationship Satisfaction subscale was substantially better at predicting relationship distress than the Social Support subscale, even though both differed significantly between RDAS categories. Thus the overall scale was able to distinguish between distressed and non-distressed couples. When separated, the Relationship Satisfaction subscale makes statistically superior division compared to the Social Support subscale (i.e., larger eta-squared value). Further, the IRT model continues to support the argument that each subscale is measuring what it is supposed to – in that all items are consistent in providing similar types of information measuring the latent trait (Relationship Satisfaction vs. Social Support).

### **Clinical Applications**

The SASC in its final form provides a brief instrument for use in determining levels of satisfaction and perceived support for same-gender couples. Such an instrument, normed on LG

samples, was not available prior to this study, and its development affords clinicians the opportunity to quantitatively assess same-gender couple's levels of relationship satisfaction and social support.

**Use of Instrument.** The SASC can be used to determine levels of satisfaction, measure perceived social support, and determine an overall level of relationship quality for same-gender couples. This is relevant for use in a clinical population.

**Scoring and interpretation.** The SASC is not difficult to hand-score. The available options to answer with range from 0 (strongly disagree) to 6 (strongly agree). Several items in the Relationship Satisfaction subscale (1, 2, 9, 14, and 16) are reverse scored. The Relationship Satisfaction subscale includes items numbered 1-16 (Table 3.2). The Social Support subscale includes items numbered 17-24.

The sum total scores are the raw scores for the client/individual taking the assessment. The raw scores can be compared to the mean score for the subscales (Relationship Satisfaction =  $68 \pm 13$ ; Social support =  $38 \pm 7$ ) and overall scale ( $107 \pm 16$ ) in order to gain a basic understanding of the level of distress in the relationship. However, raw scores do not give a clear picture of the relationship. *T*-scores can be calculated for results to provide a better interpretation of scores. Appendix H provides a *T*-Score graphing table with instructions on how to hand score.

**Measuring Change.** The SASC also can be used as a method to track change and establish the effectiveness of same-gender couple therapy. This can be accomplished by providing the SASC at intake, and re-assessing at intervals over the course of treatment, monitoring any change in the levels reported by the clients. Researchers can use this method as a way to determine whether a same-gender relationship is experiencing difficulties for inclusion as a "clinical" sample in research trials.

## **Research Implications**

**Assessment of Same-Gender Couples.** The development of this measure is a first step in the process of assessing same-gender couples in a way that is both quantitative and theoretically based. The SASC is the first psychometrically validated instrument developed specifically for use with same-gender couples. As described in Chapter II, there is very little information related to the functioning and nature of same-gender relationships based on empirical research.

The results of this study show that, on average, the typical respondent was more satisfied in their relationship with a same-gender individual than studies of heterosexual couples. Further research into the satisfaction of stable relationships and inquiries into the dissolution process of same-gender relationships is needed.

## **Conclusion**

**Limitations.** A limitation of this study is that it was conducted online, and that there were fewer ethnic minority or bisexual/transgender respondents than is representative of the population. Also, the sample consisted primarily of lesbian and gay identified women and men. However, this sampling distribution reflects the population. For future studies, a purposive sample of the bisexual population or a larger minority population is needed.

It is important to note that, while this scale was developed to assess a couple's satisfaction, functioning, and distress, the SASC is still based on an individual perspective (as are the DAS, RDAS, MSI, etc.). A person in a relationship takes the assessment individually, and the results are tabulated on an individual basis. Although each person's responses could be compared to the partner's, the result of the assessment is still that of the individual's perception of the relationship. It would be useful to have both members of the couple complete the SASC to provide a more comprehensive view of the couple relationship.

The experiences of being in a same-gender relationship cannot be fully captured in a quantitative study. Qualitative data were collected, but were not utilized in analysis. A qualitative study on the experiences of being in a same-gender relationship would allow a more complete story to emerge regarding the process of being in a same-gender relationship. Further, heterosexually-normed instruments were used to partially validate the SASC. There is an obvious bias in terms of the interpretation of the results of both the SASC and RDAS because of this bias in assessment. However the IRM approach provides information supporting the validity of the SASC subscales as measuring underlying concepts labeled “Relationship Satisfaction” and “Social Support” without reference to the RDAS.

**Summary.** This study was conducted to develop and validate of a measure of relationship satisfaction and support. The hypotheses for this study focused on establishing the reliability and validity of an assessment of relationship satisfaction and social support levels for a same-gender couple relationship. This study provides insight into the functioning of same-gender couples, and also provided a quantitative measure of same-gender relationship satisfaction, functioning, and perceived support, something lacking in the literature. Clinically, the SASC enhances the ability of couple and family therapists to work with same-gender couples in the sense of assessing relationship issues and tracking progress over sessions. For researchers, the SASC is a tool for the assessment and quantitative measure of same-gender couple functioning.



## APPENDICES

APPENDIX A:  
RECRUITMENT TEXT AND ADS

## Recruitment Text Available

### Short Advertisement

Are you currently in a committed, same-gender relationship – or have been in one in the past five years? Visit: <http://www.lgbresearch.org> to share your story, and you can enter a drawing to win a \$25 gift certificate!

### Longer Advertisement

Have you been in a same-gender relationship that has lasted at least 6 months? Do you identify as a gay man, lesbian female, or bisexual male/female? Researchers at Michigan State University are investigating the characteristics of same-gender couples, and would like your participation! The survey should only take about 45 minutes, and is conducted completely online. Questions will be asked about your relationship characteristics, and how you and your partner interact as a couple. A brief questionnaire will also ask you about you as an individual. For your time and participation, you may enter a drawing for a gift certificate valued at \$25! More information about the study is located at the website below.


<http://www.lgbresearch.org>

If you have any questions, you can contact the primary investigator, Richard S. Wampler, PhD at 517-432-6754 or [rwampler@msu.edu](mailto:rwampler@msu.edu), or the Study Coordinator, Christopher K. Belous, MA at 517-432-2272 or [belousch@msu.edu](mailto:belousch@msu.edu). The IRB of Michigan State University has reviewed this research, they can be contacted at: 517-355-2180, or [irb@msu.edu](mailto:irb@msu.edu).

## Recruitment Ads

*Facebook Ad1 3/8/12 to 3/16/12*


**LGB Research.org**  
[lgbresearch.org](http://lgbresearch.org)



Participate in LGB Affirmative Research from MSU. Same-Gender Couple research. ENTER TO WIN \$25! Click here for details/more info.

*Facebook Ad2 3/20/12 to 4/5/12*

**LGB Research.org**  
[lgbresearch.org](http://lgbresearch.org)



LGB Affirmative Couples Research from MSU! ENTER TO WIN \$25! Click here for details

*Facebook Ad3 4/24 to 5/25/12*

**LGB Research.org**

lgbresearch.org



LGB Affirmative Couples Research from MSU!

ENTER TO WIN \$25! Click here for details

*Facebook Ad4 5/25/12 to 6/2/12*

**LGB Research.org**

lgbresearch.org



Online LGB Couples Research from Michigan State – ENTER TO WIN \$25! Click here for details

*Google Adwords Ad 5/1/12 to 5/25/12*

[LGB Research.org](http://LGBResearch.org)

LGB Couples Research

Participate and Enter to win \$25!

[www.lgbresearch.org](http://www.lgbresearch.org)

APPENDIX B:  
INFORMED CONSENT

## Informed Consent

**Project Title:** Examining relationships of same-gender couples

**Investigators:**

Richard S. Wampler, PhD  
Christopher K. Belous, MA  
Michigan State University

**Purpose of Research:**

The purpose of this research is to examine the relationships of same-gender couples. A second purpose is find ways to measure same-gender relationships more appropriately.

**Time and Eligibility Requirements:** This study will be conducted online, at your convenience. The study will take approximately 45 minutes to complete. You must be 18 years of age, and self-identify as either lesbian, gay, or bisexual. You must also currently be in a same-gender relationship that is at least 6 months old, or have had a relationship of 6 months with a same-gender partner in the previous 5 years to reference.

**What Is Expected of You:**

First, you will answer questions about your current relationship (or a past relationship that lasted at least 6 months). These questions are about the relationship: (present relationship) what makes it work, what does not work or (past relationship), what worked, what did not work, and what led to its end. Second, you will use a rating scale to answer a set of questions.

**Right to Decline and Withdraw:**

You have the right to refuse to participate. Participation is voluntary, you may choose not to participate at all, or you may refuse to participate in certain procedures or answer certain questions or discontinue your participation at any time without penalty or loss of benefits. You can stop at any point by clicking “exit” on the screen.

**Potential Risks:**

We think that your risk in this study is not greater than the risks of “daily life.” All information will be kept confidential. Records will be kept on a password protected computer. If you have some discomfort from being in the study, the study coordinator (belousch@msu.edu) can help you find services.

**Potential Benefits:**

You will not benefit directly, although spending time thinking about present and past relationships may be helpful. The purpose of the study is to gain a better understanding of same gender relationships so that therapists can work more effectively with same gender couples.

**Compensation:**

For your participation, you will have the option of entering a drawing for a \$25.00 gift certificate of your choosing. You can decline to enter. At the completion of the study, if you choose to be entered in the drawing, you will be sent to a different site that cannot be connected with your

responses. At that site, you will need to provide your email address, and select what kind of gift certificate you would like to be entered for. Your chances of winning are approximately 1 in 40. Gift certificates will be delivered electronically to the email provided.

**Confidentiality:**

Your confidentiality will be protected to the maximum extent allowable by law. Data collected for this research study will be protected on a password protected computer or in a locked file cabinet on the campus of Michigan State University for a minimum of three years after the close of the project. Only the appointed researchers and the Institutional Review Board will have access to the research data.

**Contact Information:**

If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact Richard S. Wampler, PhD (Primary Investigator) at by phone at (517) 432-6754 or email at [rwampler@msu.edu](mailto:rwampler@msu.edu). You can also contact the IRB Office at phone number (517) 355-2180 or email at [irb@msu.edu](mailto:irb@msu.edu) or in person at 207 Olds Hall, East Lansing MI 48824.

**By clicking below, I agree to participate in the above described research study. I understand I can stop at any time or decline to answer any question.**

☐ I AGREE – Continue on to Survey

☐ I DO NOT Agree, Exit

APPENDIX C:  
SCALE FOR ASSESSING SAME-GENDER COUPLES



### Scale for Assessing Same-gender Couples

Directions: Please mark your agreement with each statement on the scale below.

*SCALE - LIKERT: 0-6, Strongly disagree, Disagree, Somewhat Disagree, Neutral, Somewhat Agree, Agree, Strongly Agree.*

1. There are some things about my partner that I do not like.
2. I wish my partner enjoyed more of the activities that I enjoy.
3. My mate has the qualities I want in a partner.
4. My partner and I share the same values and goals in life.
5. My family accepts my relationship with my partner.
6. My partner's family accepts our relationship.
7. My family would support our decision to adopt or have children.
8. My partner's family would support our decision to adopt or have children.
9. My partner and I have an active social life.
10. I feel as though my relationship is generally accepted by my friends.
11. I have a strong support system that accepts me as I am.
12. My partner's sociability adds a positive aspect to our relationship.
13. If there is one thing that my partner and I are good at, it's talking about our feelings with each other.
14. Our differences of opinion lead to shouting matches.
15. I would lie to my partner if I thought it would "keep the peace."
16. During our arguments, I never put down my partner's point of view.
17. Sometimes, one of us gets mad and gives the other the silent treatment.
18. When there is a difference of opinion, we try to talk it out rather than fight.
19. We always do something to mark a special day in our relationship, like an anniversary.
20. I often tell my partner that I love him/her.
21. Our sexual relationship influences our level of closeness.
22. Sometimes sex with my partner seems more like work than play to me.
23. I always seem to be in the mood for sex when my partner is.
24. Our sexual relationship decreases my frustration with other parts of our relationship.
25. My partner sometimes turns away from my sexual advances.
26. Sometimes, I am afraid that people will see a part of me of which I am not aware.
27. I have told my co-workers about my sexual orientation/attraction.
28. Most of my family members know about my sexual orientation/attraction.
29. When I meet people, I hesitate to tell them about my sexual orientation /attraction.
30. Being active in the gay community is important to me.

APPENDIX D:  
REVISED DYADIC ADJUSTMENT SCALE

**Revised Dyadic Adjustment Scale**  
Busby, Christensen, Crane, & Larson, 1995

Most persons have disagreements in their romantic relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item in the following list. Circle the number in the box that best describes your situation.

|   | <b>Always Agree</b> | <b>Almost Always Agree</b> | <b>Occasionally Disagree</b> | <b>Frequently Disagree</b> | <b>Almost Always Disagree</b> | <b>Always Disagree</b> |
|---|---------------------|----------------------------|------------------------------|----------------------------|-------------------------------|------------------------|
| 1. Religious Matters                            | 5                   | 4                          | 3                            | 2                          | 1                             | 0                      |
| 2. Demonstrations of Affection                  | 5                   | 4                          | 3                            | 2                          | 1                             | 0                      |
| 3. Making Major Decisions                       | 5                   | 4                          | 3                            | 2                          | 1                             | 0                      |
| 4. Sex Relations                                | 5                   | 4                          | 3                            | 2                          | 1                             | 0                      |
| 5. Conventionality (correct or proper behavior) | 5                   | 4                          | 3                            | 2                          | 1                             | 0                      |
| 6. Career Decisions                             | 5                   | 4                          | 3                            | 2                          | 1                             | 0                      |

|  | <b>All the Time</b> | <b>Most of the Time</b> | <b>More often than Not</b> | <b>Occasionally</b> | <b>Rarely</b> | <b>Never</b> |
|--|---------------------|-------------------------|----------------------------|---------------------|---------------|--------------|
| 7. How often do you discuss or have you considered divorce, separation or terminating your relationship? | 0                   | 1                       | 2                          | 3                   | 4             | 5            |
| 8. How often do you and your partner quarrel?  | 0                   | 1                       | 2                          | 3                   | 4             | 5            |
| 9. Do you ever regret that you married (or live together)?   | 0                   | 1                       | 2                          | 3                   | 4             | 5            |
| 10. How often do you and your mate "get on each other's nerves"?   | 0                   | 1                       | 2                          | 3                   | 4             | 5            |

|  | <b>Every Day</b> | <b>Almost Every Day</b> | <b>Occasionally</b> | <b>Rarely</b> | <b>Never</b> |
|--|------------------|-------------------------|---------------------|---------------|--------------|
| 11. Do you and your mate engage in outside interests together? | 4                | 3                       | 2                   | 1             | 0            |

|  | <b>Never</b> | <b>Less than Once a Month</b> | <b>Once or Twice a Month</b> | <b>Once or Twice a Week</b> | <b>Once a Day</b> | <b>More Often</b> |
|--|--------------|-------------------------------|------------------------------|-----------------------------|-------------------|-------------------|
| 12. Have a stimulating exchange of Ideas | 0            | 1                             | 2                            | 3                           | 4                 | 5                 |
| 13. Work together on a project           | 0            | 1                             | 2                            | 3                           | 4                 | 5                 |
| 14. Calmly discuss something             | 0            | 1                             | 2                            | 3                           | 4                 | 5                 |

---

Not on Survey Monkey.com:

Subscales -

Consensus: Items 1-6                      Cut-off = 22

Satisfaction: Items 7-10                  Cut-off = 14

Cohesion: Items 11-14                    Cut-off = 11

Overall Scale cut-off is 48.

\*Below cut-off = distress, above = well functioning

APPENDIX E:  
OUTCOME QUESTIONNAIRE 45.2

## Outcome Questionnaire 45.2

Lambert, Burlingame, Umphress, Hansen, Vermeersch, Clouse, & Yanchar, 1996.  
Looking back over the last week, including today, help us understand how you have been feeling. Read each item carefully and mark the box under the category which best describes your current situation. For this questionnaire, work is defined as employment, school, housework, volunteer work, and so forth.

*Answer Options (radio buttons next to question text):*

Never (0)      Rarely (1)      Sometimes (2)      Frequently (3)      Almost Always (4)

1. I get along well with others
2. I tire quickly
3. I feel no interest in things
4. I feel stressed at work/school
5. I blame myself for things
6. I feel irritated
7. I feel unhappy in my marriage/significant relationship
8. I have thoughts of ending my life
9. I feel weak
10. I feel fearful
11. After heavy drinking, I need a drink the next morning to get going (If you do not drink, mark "never")
12. I find my work/school satisfying
13. I am a happy person
14. I work/study too much
15. I feel worthless
16. I am concerned about family troubles
17. I have an unfulfilling sex life
18. I feel lonely
19. I have frequent arguments
20. I feel loved and wanted
21. I enjoy my spare time
22. I have difficulty concentrating
23. I feel hopeless about the future
24. I like myself
25. Disturbing thoughts come into my mind that I cannot get rid of
26. I feel annoyed by people who criticize my drinking (or drug use)
27. I have an upset stomach
28. I am not working/studying as well as I used to
29. My heart pounds too much
30. I have trouble getting along with friends and close acquaintances
31. I am satisfied with my life
32. I have trouble at work/school because of drinking or drug use (If not applicable, mark "never")
33. I feel that something bad is going to happen
34. I have sore muscles

- 35. I feel afraid of open spaces, of driving, or being on buses, subways and so forth
- 36. I feel nervous
- 37. I feel my love relationships are full and complete
- 38. I feel that I am not doing well at work/school
- 39. I have too many disagreements at work/school
- 40. I feel something is wrong with my mind
- 41. I have trouble falling asleep or staying asleep
- 42. I feel blue
- 43. I am satisfied with my relationships with others
- 44. I feel angry enough at work/school to do something I might regret
- 45. I have headaches

---

Not on Survey Monkey.com:

Reverse Score: 12, 13, 20, 21, 24, 31, 37, 43

Subscales -

Symptom Distress: 2, 3, 5, 6, 8-11, 13, 15, 22-25, 27, 29, 31, 33-36, 40-42, 45

Interpersonal Relations: 1, 7, 14, 16-20, 26, 37, 43

Social Role: 4, 12, 21, 28, 30, 32, 38, 39, 44

APPENDIX F:  
QUALITATIVE SURVEY QUESTIONS & ONLINE SURVEY FORMAT



*PAGE ONE*

*Informed Consent – separate document*

*PAGE TWO*

Age Qualifier

1. I am 18 years of age or older.
  - a. Yes
  - b. No \*

*\*Skip logic, if participant answers NO, they will be screened out of the survey.*

*PAGE THREE*

Sexual Identification

1. I identify primarily as:
  - a. Lesbian
  - b. Gay
  - c. Bisexual
  - d. Queer
  - e. Straight\*
  - f. Other (please specify):

*\*Skip logic, if participant answers STRAIGHT, they will be screened out of the survey.*

*PAGE FOUR*

Relationship Status

1. Which of the following statements best describes your current relationship status?
  - a. I am currently in a 6 month relationship with someone of the same gender.
  - b. I have had an intimate relationship with someone of the same gender that has lasted at least 6 months sometime in the previous 5 years.
  - c. I am not currently in a same-gender relationship, or have not had one that has lasted at least 6 months in the previous 5 years. \*
2. I will be answering the questions in the survey about:
  - a. A current relationship
  - b. A past relationship

*\*Skip logic, if participant answers C, they will be screened out of the survey.*

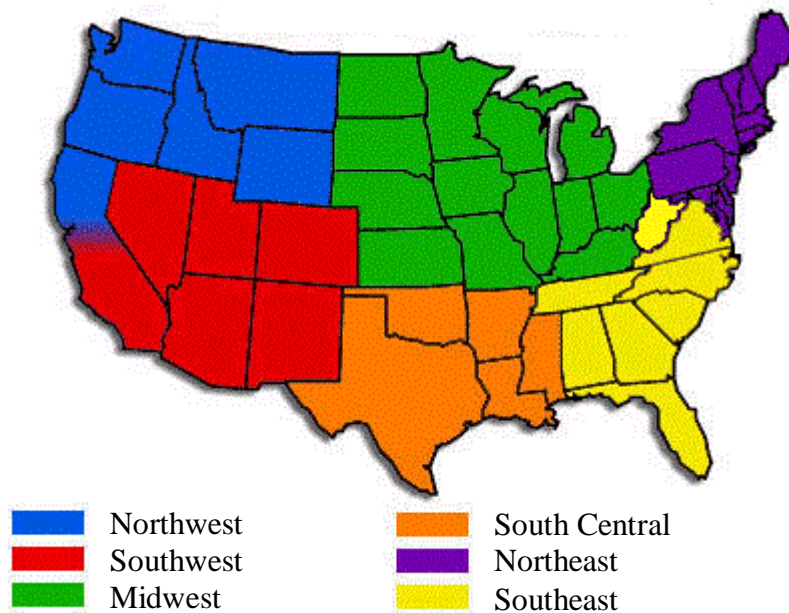
*PAGE FIVE*

Demographics

Please answer the following questions. This information will be used in aggregate form for descriptive information purposes only.

1. What is your age (in whole years)?
2. How would you describe your gender?
  - a. Female

- b. Male
  - c. Transgender
  - d. Genderqueer
  - e. Other (please specify):
3. How would you describe your ethnicity?
- a. White/Caucasian
  - b. Black/African American
  - c. Hispanic/Latino
  - d. Asian/Pacific Islander
  - e. Native American Indian
  - f. Other (please specify):
4. What type of setting do you live in?
- a. Rural (country)
  - b. Urban (city)
5. What part of the United States do you live in?
- a. Northwest
  - b. Southwest
  - c. Midwest
  - d. South Central
  - e. North East
  - f. South East



6. What are the first 3 digits of your zip code? (E.g., 48823 = 488)
7. How long have you been “out” (in total months, closest estimate)?

PRE APRIL 24<sup>th</sup>

PAGE SIX

Relationship Characteristics – Self Description

1. First, tell me about your relationship.

If you are talking about a current relationship, I am interested in:

- How you met your partner
- How long you have been in a relationship with your partner
- Where you see the relationship going in the future
- What has made this relationship successful
- How you would compare this relationship to other relationships you have had
- What would make you want to end this relationship

If you are talking about a past relationship, I am interested in:

- How you met your partner
- How long were you in a relationship with this past partner
- What made this relationship unsuccessful
- How you would compare this relationship to other relationships you have had
- What made you or your partner want to end this relationship

[TEXT BOX]

*PAGE SEVEN*

Description of Relationship Characteristics

1. What is the best part of your relationship?
2. What parts of your relationship do you feel you and your partner need to work on?
3. Describe a situation or a story in which you and your partner worked well together.
4. Describe a situation or a story when you and your partner had a disagreement.
5. Describe how you and your partner resolve conflicts.
6. Have there been any times when you were afraid of your partner? Please describe what happened.
7. Have there been any times when your partner was afraid of you? Please describe what happened.

*PAGE EIGHT*

Scale for Assessing Same-gender Couples – *Separate Document*

*PAGE NINE*

Revised Dyadic Adjustment Scale – *Separate Document*

*PAGE TEN*

Outcome Questionnaire 45.2 - *Separate Document*

POST APRIL 24<sup>th</sup>

*PAGE SIX*

Scale for Assessing Same-gender Couples – *Separate Document*

*PAGE SEVEN*

Revised Dyadic Adjustment Scale – *Separate Document*

*PAGE EIGHT*

Outcome Questionnaire 45.2 - *Separate Document*

*PAGE NINE*

First, tell me about your relationship.

If you are talking about a current relationship, I am interested in:

1. How did you meet your partner?
2. How long you have been in a relationship with your partner?
3. Where do you see the relationship going in the future?
4. What has made this relationship successful?
5. How you would compare this relationship to other relationships you have had?
6. What would make you want to end this relationship?

If you are talking about a past relationship, I am interested in:

7. How did you meet your partner?
8. How long were you in a relationship with this past partner?
9. What made this relationship unsuccessful?
10. How would you compare this relationship with others you have had?

*PAGE TEN*

11. What made you or your partner want to end this relationship?
12. What is the best part of your relationship?
13. What parts of your relationship do you feel you and your partner need to work on?
14. Describe a situation or a story in which you and your partner worked well together.
15. Describe a situation or a story when you and your partner had a disagreement.
16. Describe how you and your partner resolve conflicts.
17. Have there been any times when you were afraid of your partner? Please describe what happened.
18. Have there been times when your partner was afraid of you? Please describe what happened.

## APPENDIX G

### FINAL VERSION OF THE SCALE FOR ASSESSING SAME-GENDER COUPLES

### Scale for Assessing Same-Gender Couples

Name: \_\_\_\_\_ Date: \_\_\_\_\_

*DIRECTIONS:* Couples often have good and not-so-good moments in their relationship. This measure has been developed to get an objective point of view of your relationship. Thinking about your relationship with your partner, please mark your agreement with each statement on the scale below.

|  | Strongly disagree | Disagree | Somewhat disagree | Neutral | Somewhat Agree | Agree | Strongly Agree |
|--|-------------------|----------|-------------------|---------|----------------|-------|----------------|
| *1. There are some things about my partner that I do not like.   | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| *2. I wish my partner enjoyed more of the activities that I do.  | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 3. My mate has the qualities I want in a partner.  | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 4. My partner and I share the same values and goals in life.   | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 5. My partner and I have an active social life.  | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 6. My partner's sociability adds a positive aspect to our relationship.                                      | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 7. If there is one thing that my partner and I are good at, it's talking about our feelings with each other. | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 8. Our differences of opinion lead to shouting matches.  | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| *9. I would lie to my partner if I thought it would "keep the peace."  | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 10. During our arguments, I never put down my partner's point of view.                                       | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 11. When there is a difference of opinion, we try to talk it out rather than fight.                          | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 12. We always do something to mark a special day in our relationship, like an anniversary.                   | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 13. I often tell my partner that I love him/her.   | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| *14. Sometimes sex with my partner seems more like work than play to me.                                     | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |

|   | Strongly disagree | Disagree | Somewhat disagree | Neutral | Somewhat Agree | Agree | Strongly Agree |
|---|-------------------|----------|-------------------|---------|----------------|-------|----------------|
| 15. I always seem to be in the mood for sex when my partner is.               | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| *16. My partner sometimes turns away from my sexual advances.                 | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| *17. My family accepts my relationships with my partner.                      | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 18. My partner's family accepts our relationship.                             | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 19. My family would support our decision to adopt or have children.           | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 20. My partner's family would support our decision to adopt or have children. | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 21. I feel as though my relationship is generally accepted by my friends.     | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 22. I have a strong support system that accepts me as I am.                   | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 23. I have told my co-workers about my sexual orientation/attraction.         | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |
| 24. Most of my family members know about my sexual orientation/attraction.    | 0                 | 1        | 2                 | 3       | 4              | 5     | 6              |

## APPENDIX H

### SASC HAND-SCORING WORKSHEET WITH INTERPRETIVE T-SCORES



## SASC Hand-Scoring Worksheet with Interpretive *T*-Scores

### Instructions to Score

1. All items are summed at face value, except reverse score items
  - a. Reverse score items 1, 2, 9, 14, 16, 17
2. To calculate Relationship Satisfaction subscale, sum items 1-16
3. To calculate Social Support subscale, sum items 17-24
4. For total score, sum Relationship Satisfaction and Social Support subscale totals
5. To chart, circle score calculated under corresponding column
  - a. *T*-Scores are located on the left and right hand side of the graph
    - i. Non-shaded areas above a *T*-Score of 50 indicate increased satisfaction/support. In the dark gray area indicates levels that are above one standard deviation
    - ii. Lightly shaded areas below a *T*-Score of 50 indicate decreased satisfaction/support. In the dark gray area indicates levels that are below one standard deviation
6. If placing multiple partners on one chart, it is recommended to place an initial next to the line/placement of scores

### Raw Scores Tally

| <i>Relationship Satisfaction</i> |                       | <i>Social Support</i> |                       | <i>Total Score</i> |                       |
|----------------------------------|-----------------------|-----------------------|-----------------------|--------------------|-----------------------|
| <u>Raw Score</u>                 | <u><i>T</i>-Score</u> | <u>Raw Score</u>      | <u><i>T</i>-Score</u> | <u>Raw Score</u>   | <u><i>T</i>-Score</u> |

**Table A.1***Raw Score Chart, with Corresponding T-Score Values*

| <i>T-Score</i> | <i>Raw Scores</i>                |                       |                    | <i>T-Score</i> |
|----------------|----------------------------------|-----------------------|--------------------|----------------|
|                | <b>Relationship Satisfaction</b> | <b>Social Support</b> | <b>Total Score</b> |                |
| 70             | 94                               |                       | 139                | 70             |
| 69             | 93                               |                       | 137-138            | 69             |
| 68             | 91-92                            |                       | 135-136            | 68             |
| 67             | 90                               |                       | 134                | 67             |
| 66             | 89                               |                       | 132-133            | 66             |
| 65             | 87-88                            |                       | 131                | 65             |
| 64             | 86                               | 48                    | 129-130            | 64             |
| 63             | 85                               | 47                    | 127-128            | 63             |
| 62             | 83-84                            |                       | 126                | 62             |
| 61             | 82                               | 46                    | 124-125            | 61             |
| 60             | 81                               | 45                    | 123                | 60             |
| 59             | 80                               | 44                    | 121-122            | 59             |
| 58             | 78-79                            |                       | 119-120            | 58             |
| 57             | 77                               | 43                    | 118                | 57             |
| 56             | 76                               | 42                    | 116-117            | 56             |
| 55             | 74-75                            |                       | 115                | 55             |
| 54             | 73                               | 41                    | 113-114            | 54             |
| 53             | 72                               | 40                    | 111-112            | 53             |
| 52             | 70-71                            |                       | 110                | 52             |
| 51             | 69                               | 39                    | 108-109            | 51             |
| <b>50</b>      | <b>68</b>                        | <b>38</b>             | <b>107</b>         | <b>50</b>      |
| 49             | 67                               | 37                    | 105-106            | 49             |
| 48             | 65-66                            |                       | 103-104            | 48             |
| 47             | 64                               | 36                    | 102                | 47             |
| 46             | 63                               | 35                    | 100-101            | 46             |
| 45             | 61-62                            |                       | 99                 | 45             |
| 44             | 60                               | 34                    | 97-98              | 44             |
| 43             | 59                               | 33                    | 95-96              | 43             |
| 42             | 57-58                            |                       | 94                 | 42             |
| 41             | 56                               | 32                    | 92-93              | 41             |
| 40             | 55                               | 31                    | 91                 | 40             |
| 39             | 54                               | 30                    | 89-90              | 39             |
| 38             | 52-53                            |                       | 87-88              | 38             |
| 37             | 51                               | 29                    | 86                 | 37             |
| 36             | 50                               | 28                    | 84-85              | 36             |
| 35             | 48-49                            |                       | 83                 | 35             |
| 34             | 47                               | 27                    | 81-82              | 34             |
| 33             | 46                               | 26                    | 79-80              | 33             |
| 32             | 44-45                            |                       | 78                 | 32             |
| 31             | 43                               | 25                    | 76-77              | 31             |
| 30             | 42                               | 24                    | 75                 | 30             |

## REFERENCES

## REFERENCES

- Adam, B. (1987). *The rise of the gay and lesbian movement*. Independence, KY.: Twayne (Cengage).
- Allen, M. J., & Yen, W. M. (2002). *Introduction to measurement theory*. Long Grove, IL.: Waveland Press.
- American Association for Marriage and Family Therapy. (2005). *Position statement: AAMFT position on couples and families*. Retrieved from [http://www.aamft.org/iMIS15/AAMFT/MFT\\_Resources/MFT\\_Resources/Content/Resources/Position\\_On\\_Couples.aspx](http://www.aamft.org/iMIS15/AAMFT/MFT_Resources/MFT_Resources/Content/Resources/Position_On_Couples.aspx)
- American Psychiatric Association. (1952). *DSM I: Diagnostic and statistical manual mental disorders*. Arlington, VA.: American Psychiatric Association
- American Psychiatric Association. (1968). *DSM-II: Diagnostic and statistical manual mental disorders* (2nd Edition). Arlington, VA.: American Psychiatric Association.
- American Psychiatric Association. (1980). *DSM-III: Diagnostic and statistical manual mental disorders* (3rd Edition). Arlington, VA.: American Psychiatric Association.
- American Psychiatric Association. (1994). *DSM-IV: Diagnostic and statistical manual mental disorders* (4th Edition). Arlington, VA.: American Psychiatric Association.
- American Psychological Association. (1997). *Resolution on appropriate therapeutic responses to sexual orientation*. Resolution of the American Psychological Association, adopted August 14th, 1997, by council of Representatives.
- Andersson, G., Noack, T., Seierstad, A., & Weedon-Fekjaer, H. (2004). *The demographics of same-sex "marriages" in Norway and Sweden*. Rostock, Germany: Max-Planck Institute for Demographic Research. Retrieved March 29, 2012 from <http://www.demogr.mpg.de/papers/working/wp-2004-018.pdf>
- Ariel, J., & McPherson, D. W. (2000). Therapy with lesbian and gay parents and their children. *Journal of Marital and Family Therapy*, 26, 421-432.
- Arndt, M., & de Bruin, K. (2011). Measurement of attitudes toward bisexual men and women among South African university students: The validation of an instrument. *Journal of Homosexuality*, 58, 497-520.
- Avery, A., Chase, J., Johansson, L., Litvak, S., Montero, D., & Wydra, M. (2007). America's changing attitudes toward homosexuality, civil unions, and same-gender marriage: 1977-2004. *Social Work*, 52, 71-79.

- Baker, F. (2001). *The basics of item response theory*. College Park, MD.: University of Maryland.
- Balsam, K. F., Beauchaine, T. P., Rothblum, E. D., & Solomon, S. E. (2008). Three-year follow-up of same-sex couples who had civil unions in Vermont, same-sex couples not in civil unions, and heterosexual married couples. *Developmental Psychology*, 44, 102-116.
- Berger, P. L., & Luckmann, T. (1967). *The social construction of reality: A treatise in the sociology of knowledge*. Harpswell, ME.: Anchor.
- Blumstein, P., & Schwartz, P. (1983). *American couples: Money, work, sex*. New York, NY.: William Morrow.
- Brewster, M. E., & Moradi, B. (2010). Perceived experiences of anti-bisexual prejudice: Instrument development and evaluation. *Journal of Counseling Psychology*, 57, 451-468. doi: 10.1037/0893-3200.22.5.701
- Burgoyne, R. W. (2001). The Relationship Assessment Measure for Same-Sex Couples (RAM-SSC): A standardized instrument for evaluating gay couple functioning. *Journal of Sex & Marital Therapy*, 27, 279-287.
- Busby, D. M., Christensen, C., Crane, D. R., & Larson, J. H. (1995). A revision of the Dyadic Adjustment Scale for use with distressed and nondistressed couples: Construct hierarchy and multidimensional scales. *Journal of Marital and Family Therapy*, 21, 289-308.
- Cabaj, R. P. (1998). History of gay acceptance and relationships. In R. P. Cabaj, & D. W. Purcell, (Eds.), *On the road to same-sex marriage*. San Francisco, CA.: Josey-Bass Publishers.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multi-method matrix. *Psychological Bulletin*, 56, 81-105
- Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment*. Beverly Hills, CA.: Sage.
- Carpenter, C., & Gates, G. J. (2008). Gay and lesbian partnership: Evidence from California. *Demography*, 45, 573-590.
- Chelune, G. J. (1976). *Self-disclosure situations survey: A new approach to measuring self-disclosure*. Unpublished test manuscript. Washington, DC.: American Psychological Association.
- Chung, Y. B., & Katayama, M. (1996). Assessment of sexual orientation in lesbian/gay/bisexual studies. *Journal of Homosexuality*, 30, 49-62.

- Clausell, E., & Roisman, G. I. (2009). Outness, Big Five personality traits, and same-sex relationship quality. *Journal of Social and Personal Relationships*, 26, 211-226. doi: 10.1177/0265407509106711
- Commission on Accreditation for Marriage and Family Therapy Education. (2005). *Accreditation standards: Graduate and post-graduate marriage and family therapy training programs* (Version 11.0). American Association for Marriage and Family Therapy. Retrieved from [http://www.aamft.org/imis15/Documents/Accreditation\\_Standards\\_Version\\_11.pdf](http://www.aamft.org/imis15/Documents/Accreditation_Standards_Version_11.pdf)
- Costello, C. G., & Comrey, A. L. (1967). Scales for measuring depression and anxiety. *The Journal of Psychology*, 66, 303-313.
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment Research & Evaluation*, 10(7), 1-9.
- Crane, D. R., Allgood, S. M., Larson, J. H., & Griffin, W. (1990). Assessing marital quality with distressed and nondistressed couples: A comparison and equivalency table for three frequently used measures. *Journal of Marriage and the Family*, 52, 87-93.
- Creswell, J. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA.: Sage.
- Crisp, C. (2006). The Gay Affirmative Practice Scale (GAP): A new measure for assessing cultural competence with gay and lesbian clients. *Social Work*, 15, 115-127.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
- Darbes, L. A., Chakravarty, D., Beougher, S. C., Neilands, T., & Hoff, C. C. (2012). Partner-provided social support influences choice of risk reduction strategies in gay male couples. *AIDS and Behavior*, 16, 159-167. DOI: 10.1007/s10461-010-9868-8
- Deenen, A. A., Gijs, L., & van Naerssen, A. X. (1994). Intimacy and sexuality in gay male couples. *Archives of Sexual Behavior*, 23, 421-431.
- DeMars, C. (2010). *Item response theory*. New York, NY.: Oxford University Press.
- DeVellis, R. F. (2006). Classical test theory. *Medical Care*, 44(11-S3), S50-S59.
- Domino, G., & Domino, M. L. (2006). *Psychological testing: An introduction* (2nd ed.). New York, NY.: Cambridge University Press.
- Dooley, J. (2009). Negotiating stigma: Lessons from the life stories of gay men. *Journal of Gay and Lesbian Social Services*, 21, 13-29. doi: 10.1080/10538720802494784

- Duggan, L. (1994). Queering the state. *Social Text*, 39, 1-14.
- Embretson, S. E., & Reise, S. P. (2000). *Item response theory for psychologists*. New York, NY.: Psychology Press.
- Everitt, B., Landau, S., Leese, M., & Stahl, D. (2011). *Cluster Analysis*. West Sussex, United Kingdom.: Wiley & Sons, Ltd.
- Foucault, M. (1969). *The archaeology of knowledge*. Trans. A. M. Sheridan Smith. London and New York: Routledge, 2002
- Frost, D. M. (2011). Stigma and intimacy in same-sex relationships: A narrative approach. *Journal of Family Psychology*, 25, 1-10. doi: 10.1037/a0022374
- Gallor, S. M., & Fassinger, R. E. (2010). Social support, ethnic identity, and sexual identity of lesbians and gay men. *Journal of Gay and Lesbian Social Services*, 22, 287-315. doi: 10.1080/10538720903426404
- Gates, G. J. (April 2011). *How many people are lesbian, gay, bisexual and transgender?* [Press Release]. Los Angeles, CA: The Williams Institute.
- Goldberg, A. E., & Smith, J. Z. (2008). Social support and psychological well-being in lesbian and heterosexual preadoptive couples. *Family Relations*, 57, 281-294.
- Gottman, J. M., Levenson, R. W., Swanson, C., Swanson, K., Tyson, R., & Yoshimoto, D. (2003). Observing gay, lesbian, and heterosexual couples' relationships: Mathematical model of conflict interaction. *Journal of Homosexuality*, 45, 65-91.
- Graham, J. W., & Hofer, S. M. (2000). Multiple imputation in multivariate research. In T. D. Little, K. U. Schnabel, & J. Baumert, (Eds.), *Modeling longitudinal and multiple-group data: Practical issues, applied approaches, and specific examples*. (pp. 201-218). Hillsdale, NJ: Erlbaum
- Green, A. I. (2007). Queer theory and sociology: Locating the subject and the self in sexuality studies. *Sociological Theory*, 25(1), 26-45.
- Green, R. J. (2000). "Lesbians, gay men, and their parents": A critique of LaSala and the prevailing clinical "wisdom." *Family Process*, 39, 257-266.
- Green, R. J., & Mitchell, V. (2002). Gay and lesbian couples in therapy: Homophobia, relational ambiguity, and social support. In A. S. Gurman & N. S. Jacobson (Eds.), *Clinical Handbook of Couple Therapy*. New York, NY.: Guilford Press.
- Greenberg, L. S., & Johnson, S. M. (1988). *Emotionally focused therapy for couples*. New York, NY.: Guilford Press.

- Hanson, W. E., Creswell, J. W., Clark, V. L. P., Petska, K. S., & Creswell, J. D. (2005). Mixed methods research designs in counseling psychology. *Journal of Counseling Psychology*, 52, 224-235.
- Hardy, K. V. (1990). The theoretical myth of sameness: A critical issue in family therapy training and treatment. *Journal of Psychotherapy and the Family*, 6(1/2), 17-33.
- Hathaway, S. R., & McKinley, J. C. (1943). *The MMPI manual*. New York, NY: Psychological Corporation.
- Hathaway, S. R., & McKinley, J. C. (1951). *The MMPI manual - Revised*. New York, NY: Psychological Corporation.
- Hennessy, M. B., Coleman, M., & Ganong, L. H. (2011). Lawrence A. ("Larry") Kurdek (1951-2009). *American Psychologist*, 66, 231.
- Herek, G. M. (1996). Heterosexism and homophobia. In R. P. Cabaj & T. S. Stein (Eds.), *Textbook of homosexuality and mental health*. Washington, D. C.: American Psychiatric Press, Inc.
- Herek, G. M., Cogan, J. C., Gillis, J. R., & Glunt, E. K. (1998). Correlates of internalized homophobia in a community sample of lesbians and gay men. *Journal of the Gay and Lesbian Medical Association*, 2, 17-25.
- Hoffman, R. M. (2001). The measurement of masculinity and femininity: Historical perspective and implications for counseling. *Journal of Counseling & Development*, 79, 472-485.
- Hudson, W. W. (1993a). Index of Self-esteem. In W. W. Hudson (Ed.), *WALMYR assessment scales scoring manual* (pp. 20, 51). Tallahassee, FL: WALMYR.
- Hudson, W. W. (1993b). General Contentment Scale. In W. W. Hudson (Ed.), *WALMYR assessment scales scoring manual* (pp. 19, 52). Tallahassee, FL: WALMYR.
- Jagose, A. (1997). *Queer theory: An introduction*. New York, NY.: NYU Press.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1, 112-133.
- Julien, D., Chartrand, E., Simard, M., Bouthillier, D., & Begin, J. (2003). Conflict, social support and relationship quality: An observational study of heterosexual, gay male and lesbian couples' communication. *Journal of Family Psychology*, 17, 419-428.
- Kline, P. (1994). *An easy guide to factor analysis*. Thousand Oaks (CA): Sage



- Knoble, N. B., & Linville, D. (2012). Outness and relationship satisfaction in same-gender couples. *Journal of Marital and Family Therapy*, 38, 330-339. doi: 10.1111/j.1752-0606.2010.00206.x
- Kolmar, W. K., & Bartkowski, F. (Eds.). (2010). *Feminist theory: A reader* (3rd ed.). Boston, MA.: McGraw-Hill Higher Education.
- Kort, J. (2008). *Gay Affirmative Therapy for the straight clinician: The essential guide*. New York, NY: W. W. Norton & Company.
- Kurdek, L. A. (1992). Dimensionality of the Dyadic Adjustment Scale: Evidence from heterosexual and homosexual couples. *Journal of Family Psychology*, 6, 22-35.
- Kurdek, L. A. (1998). Relationship outcomes and their predictors: Longitudinal evidence from heterosexual married, gay cohabiting, and lesbian cohabiting couples. *Journal of Marriage and Family*, 60, 553-568.
- Kurdek, L. A. (2001). Differences between heterosexual-nonparent couples and gay, lesbian, and heterosexual-parent couples. *Journal of Family Issues*, 22, 727-754.
- Kurdek, L. A. (2004a). Are gay and lesbian cohabiting couples *really* different from heterosexual married couples? *Journal of Marriage and Family*, 66, 880-900.
- Kurdek, L. A. (2004b). Gay men and lesbians: The family context. In M. Coleman & L. H. Ganong (Eds.), *Handbook of contemporary families: Considering the past, contemplating the future* (pp. 96-115). Thousand Oaks, CA.: Sage.
- Kurdek, L. A. (2005). What do we know about gay and lesbian couples? *Current Directions in Psychological Science*, 14, 251-254.
- Kurdek, L. A. (2008). Change in relationship quality for partners from lesbian, gay male, and heterosexual couples. *Journal of Family Psychology*, 22, 701-711.
- Kraut, R., Olson, J., Banaji, M., Bruckman, A., Cohen, J., & Couper, M. (2004). Report of Board of Scientific Affairs' Advisory Group on the conduct of research on the internet. *American Psychologist*, 59, 105-117.
- Kuyper, L., & Fokkema, T. (2011). Minority stress and mental health among Dutch LGBs: Examination of differences between sex and sexual orientation. *Journal of Counseling Psychology*, 58, 222-233. doi: 10.1037/a0022688
- Lambert, M.J., Burlingame, G.M., Umphress, V., Hansen, N.B., Vermeersch, D.A., Clouse, G.C., & Yanchar, S.C. (1996). The reliability and validity of the Outcome Questionnaire. *Clinical Psychology and Psychotherapy*, 3, 249-258

- LaSala, M. C. (2000). Lesbians, gay men, and their parents: Family therapy for the coming-out crisis. *Family Process*, 39, 67-81.
- LaSala, M. C. (2004). Extradyadic sex and gay male couples: Comparing monogamous and nonmonogamous relationships. *Families in Society: The Journal of Contemporary Social Services*, 85, 405-412.
- Lasser, J., Ryser, G. R., & Price, L. R. (2010). Development of a lesbian, gay, bisexual visibility management scale. *Journal of Homosexuality*, 57, 415-428. doi: 10.1080/00918360903543154
- Lennox, R. D., & Wolfe, R. N. (1984). Revision of the Self-Monitoring Scale. *Journal of Personality and Social Psychology*, 46, 1349-1364.
- Liddle, H. A. (1984). Toward a dialectical-contextual-coevolutionary translation of structural-strategic family therapy. *Journal of Strategic and Systemic Therapies*, 3, 66-79.
- Lord, F.M. (1980). *Applications of item response theory to practical testing problems*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong S. (1999). Sample size in factor analysis. *Psychological Methods*, 4, 84-99.
- MacIntosh, H., Reissing, E. D., & Andruff, H. (2010). Same-sex marriage in Canada: The impact of legal marriage on the first cohort of gay and lesbian Canadians to wed. *The Canadian Journal of Human Sexuality*, 19(3), 79-90.
- Malcolm, J. P. (2002). Assessment of life stress in gay and bisexual men with the Gay Affect and Life Events Scale. *Journal of Homosexuality*, 42, 135-144. doi: 10.1300/J082v42n04\_09
- Malyon, A. K. (1982). Psychotherapeutic implications of internalized homophobia in gay men. *Journal of Homosexuality*, 7, 59-69.
- Marcus, E. (2002). *Making gay history*. New York, NY.: Harper-Collins.
- Martin, H., & Finn, S. E. (2010). *Masculinity and femininity in the MMPI-2 and the MMPI-A*. Minneapolis, MN.: University of Minnesota Press.
- McClennen, J. C., Summers, A. B., & Daley, J. G. (2002). The Lesbian Partner Abuse Scale. *Research on Social Work Practice*, 12, 277-292. doi: 10.1177/104973150201200205
- McGeorge, C., & Carlson, T. S. (2011). Deconstructing heterosexism: Becoming an LGB affirmative heterosexual couple and family therapist. *Journal of Marital and Family Therapy*, 37, 14-26. doi: 10.1111/j.1752-0606.2009.00149.x

- McGoldrick, M., Giordano, J., & Garcia-Preto, N. (Eds.). (2005). *Ethnicity & family therapy* (3rd Ed.). New York, NY.: Guilford Press.
- Means-Christensen, A. J., Snyder, D. K., & Negy, C. (2003). Assessing nontraditional couples: Validity of the Marital Satisfaction Inventory-Revised with gay, lesbian, and cohabiting heterosexual couples. *Journal of Marital and Family Therapy*, 29, 69-83.
- Meyer, I. H. (1995). Minority stress and mental health in gay men. *Journal of Health and Social Behavior*, 36, 38-56.
- Meyer, I. H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129, 674-697. doi: 10.1037/0033-2909.129.5.674
- Meyer, I. H., & Wilson, P. A. (2009). Sampling lesbian, gay, and bisexual populations. *Journal of Counseling Psychology*, 56, 23-31.
- MMPI Restandardization Committee. (1989). *MMPI-2 manual for administration and scoring*. Minneapolis, MN.: University of Minnesota.
- Mohr, J. J., & Fassinger, R. E. (2000). Measuring dimensions of lesbian and gay male experience. *Measurement and Evaluation in Counseling and Development*, 33, 66-90.
- Mohr, J. J., & Kendra, M. S. (2011). Revision and extension of a multidimensional measure of sexual minority identity: The Lesbian, Gay, and Bisexual Identity Scale. *Journal of Counseling Psychology*, 58, 234-245. doi: 10.1037/a0022858
- Moustakas, C. (1994). *Phenomenological research methods*. New York, NY: Sage.
- National Council of Social Workers. (2000). *"Reparative" and "conversion" therapies for lesbians and gay men: Position statement*. Statement by National Committee on Lesbian, Gay, and Bisexual Issues, January 20th, 2000.
- Novick, M.R. (1966) The axioms and principal results of classical test theory. *Journal of Mathematical Psychology*, 3, 1-18.
- Otis, M. D., Rostosky, S. S., Riggle, E. D. B., & Hamrin, R. (2006). Stress and relationship quality in same-sex couples. *Journal of Social and Personal Relationships*, 23, 81-99.
- Patterson, C. J. (2000). Family relationships of lesbian and gay men. *Journal of Marriage and Family*, 62, 1052-1069.
- Porche, M. V., & Purvin, D. M. (2008). "Never in our lifetime": Legal marriage for same-sex couples in long-term relationships. *Family Relations*, 57, 144-159.
- Reckase, M. (2009). *Multidimensional item response theory*. New York, NY.: Springer.

- Riggle, E. D. B., Rostosky, S. S., & Reedy, C. S. (2005). Online surveys for BGLT research: Issues and techniques. *Journal of Homosexuality*, 49(2), 1-21.
- Ritter, K. Y., & Terndrup, A. I. (2002). *Handbook of affirmative psychotherapy with lesbians and gay men*. New York, NY.: The Guilford Press.
- Rostosky, S. S., Korfhage, B. A., Duhigg, J. M., Stern, A. J., Bennett, L., & Riggle, E. D. B. (2004). Same-sex couple perceptions of family support: A consensual qualitative study. *Family Process*, 43, 43-57.
- Rostosky, S. S., Riggle, E. D. B., Dudley, M. G., & Wright, M. L. C. (2006). Commitment in same-sex relationships. *Journal of Homosexuality*, 51(3), 199-223.
- Roth, P. L. (1994). Missing data: A conceptual view for applied psychologists. *Personnel Psychology*, 47, 537-570.
- Ryan, C., Huebner, D., Diaz, R. M., & Sanchez, J. (2009). Family rejection as a predictor of negative health outcomes in white and Latino lesbian, gay, and bisexual young adults. *Pediatrics*, 123, 346-352.
- Samejima, F. (1969). Estimation of latent ability in a response pattern of graded scores. *Psychometrika Monograph*, No. 17.
- Samejima, F. (1996). The graded response model. In W. J. van der Linden & Hambleton, R. K. (Eds.), *Handbook of modern item response theory*. New York, NY.: Springer.
- Sanders, G. (2000). Men together: Working with gay couples in contemporary times. In P. Papp (Ed.), *Couples on the Fault Line: New Directions for Therapists* (pp. 224-256). New York, NY.: Guilford Press.
- Schlomer, G. L., Bauman, S., & Card, N. A. (2010). Best practices for missing data management in counseling psychology. *Journal of Counseling Psychology*, 57, 1-10.
- Schwartz, R. C. (1995). *Internal family systems therapy*. New York, NY.: Guilford Press.
- Scientific Software International. (2011). *IRTPRO 2.1* [computer software]. Lincolnwood, IL.: SSI, Inc.
- Sell, R. I. (1997). Defining and measuring sexual orientation: A review. *Archives of Sexual Behavior*, 26, 643-659.
- Serovich, J. M., Craft, S. M., Toviessi, P., Gangamma, R., McDowell, T., & Gafsky, E. L. (2008). A systematic review of the research base on sexual reorientation therapies. *Journal of Marital and Family Therapy*, 34, 227-238.

- Shelton, K., & Delgado-Romero, E. A. (2011). Sexual orientation microaggressions: The experience of lesbian, gay, bisexual, and queer clients in psychotherapy. *Journal of Counseling Psychology, 58*, 210-221. doi: 10.1037/a0022251
- Shidlo, A. (1994). Internalized homophobia: Conceptual and empirical issues in measurement. In B. Greene & G. M. Herek (Eds.), *Lesbian and gay psychology: Theory, research, and clinical application* (pp. 176-205). Thousand Oaks, CA: Sage.
- Silverstein, L. B., & Goodrich, T. J. (2003). *Feminist family therapy: Empowerment in social context*. Washington, D.C.: American Psychological Association.
- Smith, R. B., & Brown, R. A. (1997). The impact of social support on gay male couples. *Journal of Homosexuality, 33*, 39-61.
- Smith, M. S., & Gray, S. W. (2009). The Courage to Challenge: A new measure of hardiness in LGBT adults. *Journal of Gay and Lesbian Social Services, 21*, 73-89. doi: 10.1080/10538720802494776
- Solomon, S. E., Rothblum, E. D., & Balsam, K. F. (2004). Pioneers in partnership: Lesbian and gay male couples in civil unions and married heterosexual siblings. *Journal of Family Psychology, 18*, 275-286.
- Southern Arizona Task Force on Domestic Violence. (1995, April). *Lesbian and gay domestic violence: A resource*. Tucson, AZ: Tucson United Against Domestic Violence and The Brewster Center for Victims of Domestic Violence.
- Spanier, G. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family, 38*, 15-28.
- Suarez-Balcazar, Y., Balcazar, F., & Taylor-Ritzler, T. (2009). Using the internet to conduct research with culturally diverse populations: Challenges and opportunities. *Cultural Diversity and Ethnic Minority Psychology, 15*, 96-104.
- Szymanski, D. M., & Chung, Y. B. (2001). The Lesbian Internalized Homophobia Scale. *Journal of Homosexuality, 41*, 37-52. doi: 10.1300/J082v41n02\_03
- Truth Wins Out & Lambda Legal. (2008). *Ex-gay & the law*. Informational booklet provided by Lambda Legal & Truth Wins Out. Downloaded April 3, 2012 from [http://www.truthwinsout.org/wp-content/uploads/2009/02/exgay\\_booklet1.pdf](http://www.truthwinsout.org/wp-content/uploads/2009/02/exgay_booklet1.pdf)
- van Dam, M. A. A. (2008). A Lesbian Identity Disclosure Assessment: ALIDA instrument. *Journal of Homosexuality, 55*, 166-182. doi: 10.1080/00918360802129451
- Walsh, F. (Ed.). (2012). *Normal family process: Growing diversity and complexity* (4th Ed.). New York, NY.: Guilford Press.

- Waring, E. M., & Reddon, J. R. (1983). The measurement of intimacy in marriage: The Waring Intimacy Questionnaire. *Journal of Clinical Psychology*, 39, 53-57.
- Weinberg, G. (1972). *Society and the healthy homosexual*. Boston, MA: Alyson.
- Wilchins, R. (2004). *Queer theory, gender theory: An instant primer*. Los Angeles, CA.: Alyson Publications.
- Williams, C. J. (2012, February 23). Defense of Marriage Act ruled unconstitutional by judge. *The Los Angeles Times*. Retrieved from <http://articles.latimes.com/2012/feb/23/local/la-me-0223-doma-20120223>
- Williams, W., & Retter, Y. (Eds.). (2003). *Gay and lesbian rights in the United States: A documentary history*. Westport, CT.: Greenwood Press.
- White, M., & Epston, D. (1990). *Narrative means to therapeutic ends*. New York, NY.: W. W. Norton.
- Wolf, S. (2009). *Sexuality and Socialism: History, politics and theory of LGBT liberation*. Chicago, IL.: Haymarket Books.
- Zucker, K. J., & Spitzer, R. L. (2005). Was the gender identity disorder of childhood diagnosis introduced into DSM-III as a backdoor maneuver to replace homosexuality? A historical note. *Journal of Sex & Marital Therapy*, 31, 31-42.